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FUR-SEAL ARBITRATION.

# THE CASE

OF

# THE UNITED STATES

BEFORE THE

# TRIBUNAL OF ARBITRATION

TO CONVENE AT PARIS

UNDER THE

PROVISIONS OF THE TREATY BETWEEN THE UNITED STATES OF AMERICA AND GREAT BRITAIN, CONCLUDED FEBRUARY 29, 1892.

INCLUDING THE REPORTS OF THE BERING SEA COMMISSION.

WASHINGTON, D. C.:
GOVERNMENT PRINTING OFFICE.
1892.

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# CASE OF THE UNITED STATES.

## INTRODUCTION.

Treaty of Arbitration of 1892.

The United States of America and Great Britain entered into a Treaty on February 29, 1892, "to provide for an amicable settlement of the questions which have arisen between their respective Governments concerning the jurisdictional rights of the United States in the waters of Behring's Sea, and concerning also the preservation of the fur-seal in, or habitually resorting to, the said sea, and the rights of the citizens and subjects of either country as regards the taking of fur-seal in, or habitually resorting to, the said waters"; and they resolved, by the Treaty, "to submit to arbitration the questions involved."

First five articles.

The first five articles of the Treaty, which is published in full in the Appendix,[1] relate to the organization of the Tribunal of Arbitration and to the preparation and presentation to the Tribunal of the Cases of the respective Governments. The articles which embrace a statement of the questions submitted to arbitration are as follows:

[1] Vol. I, p. 1.



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## ARTICLE VI.

Questions submitted.

"In deciding the matters submitted to the Arbitrators, it is agreed that the following five points shall be submitted to them, in order that their award shall embrace a distinct decision upon each of said five points, to wit:

"1. What exclusive jurisdiction in the sea now known as the Behring's Sea, and what exclusive rights in the seal fisheries therein, did Russia assert and exercise prior and up to the time of the cession of Alaska to the United States?

"2. How far were these claims of jurisdiction as to the seal fisheries recognized and conceded by Great Britain?

"3. Was the body of water now known as the Behring's Sea included in the phrase 'Pacific Ocean,' as used in the Treaty of 1825 between Great Britain and Russia; and what rights, if any, in the Behring's Sea were held and exclusively exercised by Russia after said Treaty?

"4. Did not all the rights of Russia as to jurisdiction, and as to the seal fisheries in Behring's Sea east of the water boundary in the Treaty between the United States and Russia of the 30th March, 1867, pass unimpaired to the United States under that Treaty?

"5. Has the United States any right, and if

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so, what right of protection or property in the fur-seals frequenting the islands of the United States in Behring's Sea when such seals are found outside the ordinary three-mile limit?" Questions submitted.

ARTICLE VII.

"If the determination of the foregoing questions as to the exclusive jurisdiction of the United States shall leave the subject in such a position that the concurrence of Great Britain is necessary to the establishment of Regulations for the proper protection and preservation of the fur-seal in, or habitually resorting to, the Behring's Sea, the Arbitrators shall then determine what concurrent Regulations outside the jurisdictional limits of the respective Governments are necessary, and over what waters such Regulations should extend; and to aid them in that determination the report of a Joint Commission to be appointed by the respective Governments shall be laid before them, with such other evidence as either Government may submit. Regulations for protection of seals.

"The High Contracting Parties furthermore agree to coöperate in securing the adhesion of other Powers to such Regulations."

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## ARTICLE VIII.

Question of fact may be submitted.

"The High Contracting Parties having found themselves unable to agree upon a reference which shall include the question of the liability of each for the injuries alleged to have been sustained by the other, or by its citizens, in connection with the claims presented and urged by it; and being solicitous that this subordinate question should not interrupt or longer delay the submission and determination of the main questions, do agree that either may submit to the Arbitrators any question of fact involved in said claims and ask for a finding thereon, the question of the liability of either Government upon the facts found to be the subject of further negotiation."

*Modus Vivendi* of 1892.

On April 18, 1892, the Governments of the United States and Great Britain celebrated another Treaty, known as the *Modus Vivendi*,[1] whereby it was agreed that during the pendency of the Arbitration the British Government would prohibit its subjects from seal killing in the eastern part of Bering Sea, and that the United States would limit seal killing on the Pribilof Islands to seven thousand five hundred seals; and in Article V of the *Modus Vivendi* the following

[1] Vol. I, p. 6.

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question of damages was submitted to the Arbitrators:

ARTICLE V.

Question of damages.

"If the result of the Arbitration be to affirm the right of British sealers to take seals in Behring Sea within the bounds claimed by the United States, under its purchase from Russia, then compensation shall be made by the United States to Great Britain (for the use of her subjects) for abstaining from the exercise of that right during the pendency of the Arbitration upon the basis of such a regulated and limited catch or catches as in the opinion of the Arbitrators might have been taken without an undue diminution of the seal herds; and, on the other hand, if the result of the Arbitration shall be to deny the right of British sealers to take seals within the said waters, then compensation shall be made by Great Britain to the United States (for itself, its citizens and lessees) for this agreement to limit the island catch to seven thousand five hundred a season, upon the basis of the difference between this number and such larger catch as in the opinion of the Arbitrators might have been taken without an undue diminution of the seal herds.

"The amount awarded, if any, in either case

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shall be such as under all the circumstances is just and equitable, and shall be promptly paid.'

Printed Case of United States.

In accordance with the provisions of Article III of the Treaty of February 29, 1892, the Government of the United States has the honor to submit to the Arbitrators, duly appointed in virtue of Article I thereof, this Printed Case of the United States, accompanied by the documents, the official correspondence, and the other evidence on which it relies.

Division of Case.

The body of the Case is divided into two parts. The first part embraces a consideration of the first four questions contained in Article VI of the Treaty, and is introduced by a brief geographical and historical review of Bering Sea and its adjoining coasts and islands.

The second part relates mainly to the fifth question in Article VI and to Article VII, and involves a consideration of the right of protection and property in the fur-seals frequenting the Pribilof Islands, when outside the ordinary three-mile limit. These topics will require a somewhat detailed inquiry into the seal life and industry.

There will follow a brief consideration of the question of damages submitted to the Tribunal of Arbitration.

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Further provision was made in the Treaty of February 29, 1892, as follows: Further provision of Treaty.

ARTICLE IX.

"The High Contracting Parties have agreed to appoint two Commissioners on the part of each Government to make the joint investigation and report contemplated in the preceding Article VII, and to include the terms of the said agreement in the present Convention, to the end that the joint and several reports and recommendations of said Commissioners may be in due form submitted to the Arbitrators, should the contingency therefor arise, the said agreement is accordingly herein included, as follows: Joint commission to investigate seal life.

"Each Government shall appoint two Commissioners to investigate conjointly with the Commissioners of the other Government all the facts having relation to seal life in Behring's Sea, and the measures necessary for its proper protection and preservation.

"The four Commissioners shall, so far as they may be able to agree, make a joint report to each of the two Governments, and they shall also report, either jointly or severally, to each Government on any points upon which they may be unable to agree.

"These reports shall not be made public until

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they shall be submitted to the Arbitrators, or it shall appear that the contingency of their being used by the Arbitrators can not arise."

Reports of Commissioners.

The four Commissioners named by the two Governments have united in a joint report upon certain points under consideration by them; and, having failed to agree upon other points considered by them in their joint conferences, the two Commissioners on the part of the United States have united in a separate report to their own Government. The joint and separate reports are appended hereto for the information and consideration of the Tribunal of Arbitration.

Appendix.

The documents, official correspondence, and other evidence submitted with this Printed Case will be found contained in two printed Volumes and a portfolio of maps and charts, constituting together the Appendix. The Volumes will be referred to in the Case thus: "Vol. I, p. 1," and the maps and charts will be indicated by the numbers marked on them. The lithographic illustrations will be referred to by the pages of the Appendix which precede them.

The Government of the United States understands, however, that, under the terms of the Treaty, it may hereafter present "additional documents, correspondence, and evidence," and it reserves the right to do so.

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# PART FIRST.

## RELATING TO HISTORICAL AND JURISDICTIONAL QUESTIONS.



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# PART FIRST.

## RELATING TO HISTORICAL AND JURISDICTIONAL QUESTIONS.

### GEOGRAPHICAL SKETCH OF BERING SEA.

Location, boundaries and dimensions.

Bering Sea is the body of water lying between the Arctic Ocean and the North Pacific Ocean. It is connected with the former by Bering Strait, and with the latter chiefly by the opening which is found between the westernmost of the Aleutian Islands and the peninsula of Kamchatka. It is sometimes referred to and treated as a great land-locked sea.[1]

Generally speaking, it may be regarded as a triangle, with the vertex in Bering Strait and bounded on the east by the mainland of Alaska, on the north and west by Siberia and the peninsula of Kamchatka, while its southerly boundary is formed by the peninsula of Alaska and the line of the Aleutian Islands extended to Kamchatka.

It has an area of about 873,128 square miles.[2]

[1] Findlay's North Pacific Directory, 2d ed., London, 1870, p. 517.

[2] Unless otherwise stated, all measurements are given in English statute miles, of which there are 69½ to a degree.



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The distance from Bering Strait to the southern boundary of the Aleutian Chain is about 1,078 miles, and its greatest width from east to west about 1,437 miles.

Bering Strait.

To the north is Bering Strait, fifty-eight miles in width, but in its narrowest portion are situated the two Diomede Islands. The shores of either side of the strait are steep and rocky.

Eastern boundary of Bering Sea.

The eastern boundary of the sea begins in a lofty hill at Cape Prince of Wales, the western limit of the continent of America and the eastern limit of Bering Strait. From Cape Prince of Wales the American coast stretches to the southward in a line broken mainly by the deep inlets of Norton Sound and Bristol Bay, between which are Cape Romanzof, Kuskoquim Bay, and Cape Newenham. The coast is generally low and marshy, no hills of any considerable size being visible. South of Bristol Bay it shoots out in a southwesterly direction into the long, narrow peninsula of Alaska, reaching westward almost to the longitude of Cape Prince of Wales. The chief rivers entering Bering Sea along this boundary are the Yukon and the Kuskokuim.

Northern and western boundary.

The northern and western boundary is in marked contrast with the eastern. It is rugged throughout, the mountains growing higher and

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higher as the chain, which eventually forms the backbone of the peninsula, extends south. The shore has several indentations, the chief one of which is the Gulf of Anadyr, into which flows the Anadyr River.

Southern boundary. Peninsula of Alaska.

The peninsula of Alaska, forming a part of the southern boundary of Bering Sea, is four hundred and fifty-six miles long and about fifty miles wide, and consists of a more or less level tract interrupted by single mountain peaks or clusters of peaks. Between these peaks, especially toward the western extremity, are low-lying, marshy gaps, which form portages, used by the natives for carrying their boats across from the Pacific Ocean to Bristol Bay.[1]

Southern boundary. Aleutian Islands.

The chain of the Aleutian Islands, completing the southern boundary of Bering Sea, consists of about forty principal islands and a considerable number of islets and rocks. From the peninsula of Alaska these islands sweep in a curve, convex toward the south, to the southward and westward for one thousand and seventy-three miles to the island of Attu, and thence north and west two hundred and five miles to the Commander Islands, which are regarded by some

[1] Reclus, Nouvelle Géographie universelle, 17 volumes, Paris, 1875–1891, vol. XV, p. 201.

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Southern boundary. Aleutian Islands.

geographers as a part of the same chain.[1] From the Commander Islands to the Asiatic coast the distance is one hundred and ten miles

The largest of the Aleutian Islands are Unimak, Unalaska, and Umnak, the two former being about seventy-five miles long. The straits or passes separating the islands are of various widths, those in the easterly half being generally narrow and but few of them available for navigation. The most important are Unimak Pass, eleven miles wide, and Amukta or "Seventy--two" Pass, forty-two miles wide. The entire chain is of volcanic origin, and lofty peaks rise from most of the islands. Some Alaskan or Aleutian crater is almost constantly in activity. More than thirty mountains have at various times been reported active, and new islands have been thrown up by volcanic action since the discovery of the region by the Russians.[2]

Islands in Bering Sea.

The chief islands lying within Bering Sea are the following: St. Lawrence, St. Matthew, Nunivak, Karaginski, and the Pribilof Islands.

Large portion very shallow.

A peculiar feature of Bering Sea is the extensive bank of soundings which stretches off for two hundred and fifty or more miles from the

[1] Vivien de Saint-Martin, Nouveau Dictionnaire de Géographie universelle, Paris, 1879, vol. I, p. 416; Encyclopædia of Geography, revised ed., Philadelphia, 1838, vol. III, p. 344.

[2] Reclus, vol. XV, p. 202; North Pac. Dir., p. 498 *et seq.*

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American coast, rendering the easterly portion of the sea very shallow.[1] The charts show that throughout one-third of the sea the depth of the water does not, generally, exceed fifty fathoms, and they also show that the average depth of the whole sea is very considerably less than that of the adjoining ocean.[2]

Large portion very shallow.

The shores of Bering Sea are but thinly populated, the native inhabitants of those now belonging to the United States being Esquimos and Aleuts.[3] The vegetation of the coasts adjacent to Bering Sea consists mainly of rank grasses and (in the more southern parts) of alder and willow. There are no agricultural products, though the interior valleys display considerable richness of vegetation.[4] The chief commercial products of the sea and its coasts are fur-bearing animals and codfish.

Population, vegetation and commercial products.

## GEOGRAPHICAL SKETCH OF THE PRIBILOF ISLANDS.

The group of islands known as the Pribilof Islands is situated in the shallow part of Bering

Location.

[1] See North Pacific Dir., pp. 517, 567.

[2] See also Wallace's Island Life, New York, 1881, p. 295, map.

[3] Reclus, vol. XV, p. 225.

[4] North Pacific Dir., p. 510; Encycl. of Geog., vol. III, p. 344; Wappäus, Handbuch der allgemeinen Geographie und Statistik, Leipzig, 1855, vol. I, part I, p. 298.

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Location.

Sea, in about latitude 57° N. and longitude 170° W. It is of volcanic origin[1] and far removed from other land, the nearest adjacent points being Unalaska Island, at a distance of two hundred and fourteen miles to the southward; Cape Newenham, upon the mainland of Alaska, distant three hundred and nine miles in an easterly direction; and St. Matthew Island, distant two hundred and twenty miles to the northward.

Group consists of four islands.

The group consists, in the order of their magnitude, of St. Paul, St. George, Otter, and Walrus Islands. The first two are separated by forty miles of water. The last two are within six miles of St. Paul.

St. Paul Island.

The largest of these islands is St. Paul, situate in latitude 57° 10′ N. and longitude 170° 20′ W. It is from northeast to southwest thirteen miles long, with a maximum width of six miles. Its area is about forty-two square miles; its shore line forty-two miles. The highest hill attains an altitude of six hundred and thirty-three feet; three others exceed five hundred feet in height. The island comprises rocky uplands, rugged hills, and broad valleys, alternating with extensive bogs of moss and heather, some of which contain fresh-water ponds. Considerable stretches of

[1] Reclus, vol. XV, p. 205.

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sandy beach border some of the bays, but most of the shores are rocky. The photographs submitted with this Case will enable the Tribunal to form a conception of the ruggedness of the shores and of the irregularity and confusion of the lava blocks that cover them. The average height of the upland is not over one hundred and fifty feet, but three small peaks, one of which in particular has the appearance of a crater, attain a height of nearly six hundred feet. St. Paul Island.

About forty miles to the southeast of St. Paul lies St. George, in latitute 56° 35′ N. and longitude 169° 30′ W. Its length is ten miles, while its greatest width is about four and a half miles. It has an area of thirty-four square miles, and a coast line of thirty miles. On St. George the coast rises precipitously from the sea, and is, for the most part, a succession of cliffs, with not more than six or eight miles of low-lying shores and not over a mile of sandy beach, whereas large stretches of the shores of St. Paul are of the latter character. St. George contains two hills, more than nine hundred feet in height, and united by moderately high ground. Its general altitude is about hree times that of St. Paul. St. George Island.

Otter Island lies six miles south of St. Paul. It is the only one of the group upon which are found evidences of recent volcanic action. It is Otter Island.



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Otter Island.

about three-fourths of a mile long and half as broad. Its north shore is low, with a broken, rocky beach; elsewhere its coast is marked by steep cliffs, which attain a maximum height of three hundred feet.

Walrus Island.

Walrus Island lies seven miles east of St. Paul. It is a narrow ledge of lava about half a mile long, and so low that in stormy weather it is washed over by the waves.

Absence of harbors.

There are no harbors at any of these islands, though both at St. Paul and St. George there is anchorage for small vessels in moderately calm weather. During the prevalence, however, of winds from certain directions it is impossible to load or unload vessels of any kind in safety. Rocks or reefs are found in the neighborhood of both these islands.

Climate.

There are, really, but two seasons upon the Pribilof Islands. Summer may be said to begin in the latter part of April, and winter in November, the change from the one to the other being very rapid. Throughout the summer the climate is humid and disagreeable. Dense fogs prevail and hang in heavy banks over the islands, the atmosphere is rarely clear, and the sun is seldom seen. So dense is the fog, that navigation in their vicinity is rendered extremely hazardous, and it is often impossible for navigators to

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Climate.

find them. Indeed, it is probable that their discovery was retarded on account of the prevalence of fog.[1] The summer temperature ranges between 40° and 45° F., and is highest in August. By the end of October cold winds sweep across the islands, carrying away the moisture. These winds continue throughout a large part of the winter, rendering the climate during that time most disagreeable. The winter temperature averages between 22° and 26° F. The surrounding sea generally freezes over in winter, and the ice remains until the latter part of April, when it rapidly disappears. The shallowness of the eastern portion of Bering Sea prevents any icebergs from reaching the Pribilof Islands. Further details respecting their climatic condition will be given later in the Case, when the habits of the fur-seals are discussed.

Animal life.

The principal mammals inhabiting the islands are fur-seals, sea-lions, and hair-seals. Formerly sea-otters and walruses were found there in abundance, but owing to indiscriminate hunting they have been exterminated. Blue foxes are common on both islands and lemmings on St.

[1] These conditions are not confined to the Pribilof Islands, but prevail throughout a great part of Bering Sea. They are matter of common knowledge. See Beechy's Narrative of a Voyage to the Pacific Ocean and Bering Straits, London, 1831, vol. I, p. 241; North Pac. Dir., p. 534; Wappäus, p. 298.

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George. Myriads of birds breed upon the high, rocky cliffs of the islands.

Inhabitants.

The group was uninhabited when first discovered, but was soon colonized by the introduction of natives from Unalaska and other islands of the Aleutian Chain. In 1890 the population of St. Paul was two hundred and forty-four souls, of which twenty-two were white; on St. George there were ninety-three souls, of which eight were white; making the total population of the group three hundred and thirty-seven. Seal meat is the staple food of the natives to-day.

Vegetation.

The vegetation resembles that of the Aleutian Islands, in that no trees are found. It consists of numerous species of grasses of an intensely green color, and of many kinds of wild flowers, which grow in abundance.

## DISCOVERY AND OCCUPATION OF THE SHORES AND ISLANDS OF BERING SEA.

Bering's first expedition.

The exploration of Bering Sea and of the coasts and islands of America which surround it followed upon, and was the direct result of, the occupation[1] of Eastern Siberia and the peninsula of

[1] Voyage to the Pacific Ocean under the direction of Capt. Cook and others, London, 1784, vol. III, pp. 359–383; Coxe's Russian Discoveries between Asia and America, London, 1804, p. 317 *et seq.*; Müller, Voyages from Asia to America, translated by Jeffries, London 1764, 2d ed., pp. 1–44.

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Kamchatka by the Russians in the seventeenth century. As early as 1648 a Russian ship is reported to have sailed from the Arctic Ocean through Bering Strait to Kamchatka[1]; but not until the reign of Peter the Great was any organized effort made to explore the unknown regions of this sea. The execution of his plans, owing to his death, devolved upon his successor, Empress Catherine. The first expedition, under Vitus Bering, sailed from Kamchatka in 1728 in a northeasterly direction. After discovering St. Lawrence Island it passed through the strait which has since been known by the name of the great navigator.[2] Another part of this expedition reached the continent of America in about latitude 65°, in the vicinity of the mouth of the Yukon River.[3]

Bering's first expedition.

In 1741 Bering started out on his second expedition. It consisted of two parts, both of which discovered the continent of America. Upon his homeward voyage Bering landed at the Shumagin Islands, sighted a large number of the Aleutian Islands, and was finally shipwrecked

Bering's second expedition.

[1] See map in Müller's Voyages; Cook, vol. III, p. 361; Burney's History of Northeastern Voyages of Discovery and of the Early Eastern Navigations of the Russians, London, 1819, p. 60 *et seq.*

[2] Müller, p. 48. The name was conferred by Cook in 1778: Greenhow's Memoir on the Northwest Coast of America, Senate Doc. No. 174, Twenty-sixth Congress, first session, p. 82.

[3] Müller, p. 55, and map (frontispiece); Burney, p. 130.

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on the Commander Islands. He died upon the one which was subsequently named for him.[1]

Resources of Commander Islands made known.

This last expedition made known the valuable fur resources of the Commander Islands, and brought back to Siberia large quantities of the skins of sea-otters, fur-seals, and foxes. This led to the organization of many private expeditions, and one adventurer, Bossof, is reported to have gathered on these islands furs to the value of at least one-half million dollars between the years 1743 and 1749.[2] The voyages at this period were numerous and indicate great activity throughout the Aleutian Chain, island after island being discovered by private Russian adventurers.[3] Discovery and subjugation to Russian rule went hand in hand with trade, the rich merchants of Moscow furnishing in great measure the money which sustained the cost of discovery; and Cook, writing in 1784, says that the Russians had conquered the Aleutian Islands and made them tributary.[4] Several navigators under Russian Imperial authority made further expeditions into Bering Sea and visited various parts of the coasts, but it was not until the year 1786

[1] Müller, pp. 93–97, and map (frontispiece); Cook, vol. III, p. 372; Burney, p. 176.

[2] Berg, Chronological History of the Discovery of the Aleutian Islands, or the Achievements of Russian Merchants, and also an Historical Review of the Fur Trade, St. Petersburg, 1823, p. 1 *et seq.*

[3] Burney, pp. 183–185; Coxe, pp. 86–110.

[4] Cook, vol. III, p. 372.

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Discovery of Pribilof Islands; due to search for furs.

that the most important of all the discoveries in this sea, that of the Pribilof Islands, was made. It was brought about by the same cause which led to all the other enterprises in these regions, the search for furs. The Russians had already become acquainted with the fur-seals upon the Commander Islands. They had also noticed what is to-day known as the Pribilof herd, as it passed semiannually through the channels of the Aleutian Islands; and as the supply of sea-otters diminished, they began exerting themselves to ascertain upon what shores these fur-seals landed. Much time was spent in following them both upon their northward and southward courses. In 1786 the final search for them was undertaken by Gerassim Pribilof, who for five years had been employed by one of the leading trading companies and was regarded as one of the best navigators of that region. For three weeks he cruised in the neighborhood of the Pribilof group in a dense fog without finding it. "At last," says Veniaminof, "fate, as if relenting, yielded to the untiring efforts of an enterprising man and lifted the curtain of fog, revealing the eastern part of the island nearest the Aleutian Archipelago . . . ."[1] This

[1] Veniaminof's Notes on the Islands of the Unalaska District, St. Petersburg, 1840, part 1, p. 271.

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island was named St. George. In the following year the island of St. Paul was discovered.

Cook's expedition to Bering Sea.

Meanwhile, in the year 1778, the English navigator, Captain Cook, had appeared in Alaskan waters, in coöperation with an expedition sent by the British admiralty to Baffin Bay in the hope that a northern passage might be discovered from the Pacific to the Atlantic.[1] After visiting certain points on the Pacific coast of Alaska, he passed into Bering Sea and sailed along the eastern shore as far as Bering Strait, giving names to various places, among which are those of Bristol Bay and Norton Sound. At several points on the coast which he visited he found clear evidence of Russian influence and customs, and he confirmed in the strongest manner the early Russian discoveries. His visit was never followed up by settlement, and it resulted in no acquisition of territory or claim thereto by his Government.[2]

Subsequent Russian expeditions.

In 1791 an expedition, planned by Catherine II, passed from the Aleutian Islands to the northern parts of Bering Sea, including St. Lawrence

[1] Burney, pp. 219, 220.

[2] On the contrary, it inured largely to the benefit of the Russians, of whom Cook, in his third volume, at page 373, predicts that "they will undoubtedly make a proper use of the advantages we have opened to them by the discovery of Cook's River (Inlet)." See, also, Coxe, p. 206.

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Island and Cape Rodney, and returned along the Asiatic coast. Other expeditions followed at various times, an important one being that of Korasakovsky, who, in 1818, made a thorough exploration of a great part of the eastern shore of the sea and established a fort at the mouth of the Nushagak.[1]

Subsequent Russian expeditions.

The great wealth to be derived from the fur-bearing animals led to permanent settlements, the subjugation of the native tribes, and the establishment of forts or trading posts by the Russians on various of the Aleutian Islands, on the Pribilof Islands, and on the eastern mainland of Bering Sea during the latter part of the eighteenth and early years of the nineteenth centuries. Thus, by first discovery, occupation, and permanent colonization, the shores and islands of Bering Sea, the Aleutian Chain, and the peninsula of Alaska became, probably as early as 1800, an undisputed part of the territory of the Russian Empire.[2]

Shores and islands became Russian territory as early as 1800.

[1] The whole of this shore, together with other territory, had already been claimed by Russia in the ukase of 1799, reference to which will be hereafter more fully made. See, generally, upon the whole of the foregoing subject Vivien de Saint-Martin, vol. I, "Alaska," pp. 55, 56.

[2] See "Russia's Early Title to parts of the Coast of America," Vol. I, p. 12.



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## CLAIMS TO THE NORTHWEST COAST OF AMERICA.

Early competition for possession of coast of America.

While the title of Russia to the territory north and west of, and including, the peninsula of Alaska was universally recognized, her claim to the Northwest Coast of the American continent, by which term it is intended to designate the coast between Prince William Sound and the mouth of the Columbia River, was earnestly disputed by more than one powerful nation. During the latter part of the last century and the early years of the present, Great Britain, Spain, and the United States were competing with Russia by way of exploration, trade, and colonization for the possession of the Northwest Coast of America.

Russian competition. Settlement at Kadiak Island.

As early as 1741 Tcherikof, a Russian Captain under Bering's command, visited the coast in about latitude 55° N.;[1] but the earliest permanent settlement east of the Aleutian Chain was made at Kadiak Island in 1784 by Shelikof,[2] an enterprising merchant, who afterwards laid the foundation for the Russian American Company. A trading post, dwelling houses, and fortifications were erected and a school established. Later, cruises were undertaken from Kadiak to the ad-

[1] Müller's Voyages, map (frontispiece).
[2] Coxe, p. 207 *et seq.*

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joining islands and the mainland around Cook's Inlet, Prince William Sound, and Yakutat Bay.[1] The influence of the Kadiak colony in the adjoining continent is told by Coxe in these words: "The settlement formed by Shelikof in the isle of Kadiak has more contributed to spread the extent of the Russian trade and power in the North Pacific Ocean than any of the preceding expeditions. He sent out detached parties, who formed establishments on various parts of the American continent and kept the natives in due order and subjection."[2] In one of these cruises, made under Shelikof's direction, the continent was reached near Prince William Sound, and the coast was followed and carefully explored to the east and south beyond latitude 50°. Coxe says, speaking of the traders who conducted this cruise: "By comparing their accounts with the narratives of Cook, Portlock, Meares, and Vancouver, we have been able to ascertain most of the harbours and places at which they touched, and the general agreement with the accounts given by the English navigators proves the accuracy of their description."[1] At Yakutat, in June, 1788, they took formal possession of the country and received

Russian competition. Settlement at Kadiak Island.

[1] Coxe, p. 232.

[2] Coxe, p. 264. See also *ibid.*, pp. 268, 269, 273.

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Russian competition. Settlement at Kadiak Island.

from the native chief tokens of his acceptance of Russian dominion.[1] As further evidence of Russian occupation of the mainland of the Northwest Coast the launching of a vessel in 1794 from the shores of Prince William Sound is chronicled, this being the first ship built in Alaska.[2]

Founding of Sitka.

But the most important step taken by Russia to permanently establish her authority over the islands and adjoining shores of the Northwest Coast of the continent was the founding in the beginning of the present century of New Archangel (afterwards Sitka),[3] which soon became a fortress, the principal trading post, and the seat of government of the Russian American possessions. From Kadiak, first, and from Sitka, later, the Russian merchants continued to push their traffic with the natives along down the mainland toward the Columbia River, and in 1812 they had even established a colony on the coast of California,[4] called Fort Ross, a few miles north of the Bay of San Francisco. As early as 1810 Russia had gone so far as to inform the United

[1] See, generally, Coxe, pp. 240–254.

[2] Tikhmenief's Historical Review of the Development of the Russian American Company and of its Operations up to the present Time, St. Petersburg, 1861, vol. I, p. 40.

[3] Vivien de Saint-Martin, vol. I, p. 56. The year 1802 is generally taken as the date of the founding of Sitka.

[4] Greenhow's Memoir, pp. 9, 148; Vivien de Saint-Martin, vol. I, p. 56.

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States that she claimed the coast to the Columbia River.[1]

British competition.

On the other hand, Great Britain early laid claim to portions of this same Northwest Coast. Drake is believed by some to have touched it in his discoveries in 1579.[2] The famous British navigator, Captain Cook, appeared there in 1778, visited Prince William Sound and Cook's Inlet, and (as already noticed) passed into Bering Sea. Cook's voyages were followed by those of Portlock, Dixon, Meares, and Vancouver. English traders, and especially the powerful Northwest Company (which in 1821 became united with the Hudson's Bay Company), were rapidly extending their enterprise to the coast between the Columbia River and latitude 56° N. and thus coming into competition and conflict with the merchants and traders of other countries, including those of Russia.[3]

Spanish competition.

So, also, Spain, following up the occupation of California, soon after the middle of the eighteenth century began laying her plans for a complete occupation of the whole of the western coast of America washed by the waters of the Pacific

[1] American State Papers, Foreign Relations, vol. V, p. 442. See, also, generally, "Russia's Early Title to the Coast of America," Vol. I, p. 12.

[2] Burney's History of Discoveries in the South Sea, London, 1803, vol. I, p. 356. See, also, Greenhow's Memoir, p. 37.

[3] London Quarterly Review, vol. XXVI, pp. 344–347.

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Spanish competition.

Ocean, and in doing this she was actuated largely by knowledge of the fact that the Russians had a similar object in view.[1] Prior to 1768 the Spanish navigators had explored it up to latitude 43°, and in 1774, 1775, and 1779 they visited various portions of the same as far north as Prince William Sound, taking possession of much of the country on behalf of their sovereign; and an examination of the map of that region of the present day attests, in the geographical names, the early presence of the Spanish discoverers.[2] As late as 1790 Spain asserted her right to the Northwest Coast to latitude 60° N.[3]

The Nootka Sound controversy.

Some of the Spanish claims were brought to an issue in 1789 in the Nootka Sound controversy, which was the first dispute between European nations in regard to any territory lying between San Francisco and Prince William Sound. Nootka Sound is situated on the west side of Vancouver Island in about latitude 50° N.[4] In 1789, on being informed that Russia was intending to occupy it, the Spanish Government sent out two men-of-war with orders to anticipate her and drive away all foreigners. No trouble of

[1] Greenhow's Memoir, pp. 52, 96.

[2] Vivien de Saint-Martin, vol. I, p. 56; Greenhow's Memoir, p. 57 and chap. IV.

[3] American State Papers, Foreign Relations, vol. V, p. 444.

[4] It appears to have been discovered, and was named, by Cook in 1788. Greenhow's Memoir, p. 82.

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any kind with Russia arose out of these measures,[1] but the Spanish naval commander having seized two vessels engaged in trade there, together with certain houses and land, all of which the British Government claimed to be the property of British subjects, the act of seizure was vigorously and successfully resented, and as a result of a heated controversy the treaty of 1790 was celebrated between Great Britain and Spain.[2] Article III of that treaty is, in part, as follows: "It is agreed that the respective subjects shall not be disturbed or molested either in navigating or carrying on their fisheries in the Pacific Ocean, or in the South Seas, or in landing on the coasts of those seas in places not already occupied, for the purpose of carrying on their commerce with the natives of the country or of making settlements there; the whole subject, nevertheless, to the restrictions specified in the three following articles."

The Nootka Sound controversy.

Treaty of 1790 between Great Britain and Spain.

This stipulation is of special significance, as it constituted a basis of the adjustment made by Russia with the United States in 1824 and with Great Britain in 1825, respecting the navigation of the Pacific Ocean and the conflicting claims to the territory on the Northwest Coast.

[1] American State Papers, Foreign Relations, vol. V, p. 445.
[2] Vol. I, p. 32. See Greenhow's Memoir, chap. VI.

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American competition.

The partial navigation of the Columbia River by the American navigator, Captain Gray, in 1792, the expedition of Lewis and Clarke across the Rocky Mountains in the years 1803 to 1805,[1] and the establishment of the Pacific Fur Company on the Pacific coast in the early years of the present century, gave to the United States a permanent lodgment on the Northwest Coast and constituted the basis of an active competition on the part of that nation for the sovereignty and trade of a considerable part of the shores and waters of the Pacific.[2] The troubles which early in this century arose between the United States and Great Britain as to ownership of these coasts were left undetermined by the treaty of Ghent, following the war of 1812; and in 1818, being still unable to adjust the respective claims, the two powers agreed that all territory in dispute claimed by either of them between the Rocky Mountains and the Pacific Ocean should, with its harbors, bays, and rivers be open and free for ten years to the vessels and citizens of both nations,[3] and not until 1846 were their respective territorial rights on the Northwest Coast permanently settled by treaty.

[1] Greenhow's Memoir, p. 126 *et seq.*, p. 149.

[2] Greenhow's Memoir, pp. 152–158.

[3] Treaty of 1818 between the United States and Great Britain, Vol. I, p. 34.

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The claims of Spain to this region were transferred to the United States by the treaty of 1819.[1]

This competition certain to result in international conflict.

It thus appears from the foregoing historical review that, while the claim of Russia to the territory embracing the Aleutian Islands, the peninsula of Alaska, and the coasts and islands of Bering Sea was undisputed, the shores and the adjacent islands of the American continent south of latitude 60° as far as California were during the latter part of the eighteenth and the first quarter of the present century the subject of conflicting claims on the part of Russia, Great Britain, Spain, and the United States. This condition of affairs indicated that an international conflict was likely to come sooner or later, and it was foreshadowed in an article printed in the London Quarterly Review of 1814, in which it was said: "How long the continent of America will afford a supply of furs and peltry to the contending traders of England, Russia, and the United States, we pretend not to determine, but we believe they have each of them lately experienced some difficulty in supplying the usual demand for those of the most valuable description. An increasing scarcity can not fail to produce a collision of interests and disputes, which at one time or other will probably terminate in a war."[2]

[1] Vol. I, p. 34.

[2] London Quarterly Review, Vol. XI, p. 292.



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## THE RUSSIAN AMERICAN COMPANY.

Its political and commercial importance.

Having thus presented a brief sketch of the political condition of affairs in the early part of this century in the territory surrounding Bering Sea and on the Northwest Coast of America, it is proper, before entering upon a consideration of the events of international importance which follow, to refer to the organization and early history of the Russian American Company, an association which for a period of over sixty years carried on trade and administered public affairs throughout a great part of these regions. In the extent and variety of its operations it occupies a position similar to that held by the East India and the Hudson's Bay Companies; and its history is also the history of that portion of the globe to which the attention of the Tribunal of Arbitration is directed.

The outgrowth of trading associations.

The Russian American Company was the outgrowth of the numerous trading associations,[1] which, soon after the discoveries of 1741, began to develop the lucrative fur trade in the Aleutian Islands and Bering Sea. The rivalry and competition which grew up between them proved in many ways disastrous[2] and resulted eventually

[1] For a detailed account of same, see Berg, p. 1 *et seq.*

[2] Tikhmenief, vol. I, p. 61.

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in placing the fur trade of the Colonies under the control of a single powerful organization.[1] This was accomplished in 1799, in which year a ukase was issued, creating the "Russian American Company" and containing its first charter.[2]

Chartered in 1799.

This ukase invested it with special and exclusive privileges for a period of twenty years on the shores of northwestern America between latitude 55° N. and Bering Strait, on the Aleutian Islands, the Kurile Islands, and the islands of the Northeastern or Bering Sea. To it was reserved the exclusive right to all products of the chase and of commerce in those regions; and it was specially authorized to take possession on behalf of the Imperial Government of newly discovered countries, both to the north and to the south of latitude 55° on the coast of America. It was authorized to establish agencies within and without the empire, and to use a seal and and a flag bearing the Imperial coat of arms. Its chief place of business, which was originally at Irkutsk, was soon transferred to St. Petersburg, where its shareholders, none of whom were allowed to be foreigners, embraced members of the Imperial family and the high nobility.

Its rights and privileges under first charter.

[1] Vivien de Saint-Martin, vol. I, p. 56.
[2] Vol. I, p. 14.

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While the privileges conferred by this charter were very great, the Company was, on the other hand, burdened with some heavy obligations. It was compelled at its own expense to carry on the government of the region over which its privileges extended, to maintain courts, the church, and a small military force, and, at a later period, to hold ready at various points on the coast provisions and stores for the use, in cases of emergency, of the naval vessels or troops of the Russian Government.

Its obligations.

Its mode of government.

For the purposes of administration the Imperial Government and the directors of the Company jointly appointed a chief manager, who resided at Sitka, and who at an early date was required to be an officer of the navy of high rank. His powers were absolute within the territory over which the Company exercised jurisdiction. Under him were sub-managers, overseers, and other agents. Reports of the Company's transactions were submitted originally to the Minister of the Interior, and later to the Minister of Finance.

Officers of Imperial navy engaged in its service.

Dating from the year 1802 officers of the Imperial navy were constantly in the employ of the Company. As long as it maintained a military and naval force in the Colonies at its own expense, such forces were entirely at the dis-

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posal of the chief manager, who had the privilege of selecting the soldiers and sailors from any force stationed within the boundaries of Siberia. Even the officers of those naval vessels which were not maintained at the expense of the Company, and which were sent out to the Colonies by the Imperial Government, were generally enjoined to obey the orders of the chief manager, and it will be made to appear from papers which will be hereafter cited that such orders were freely given.

Officers of Imperial navy engaged in its service.

Under its charter the Company paid no royalty or rent to the Government, but as its trade consisted chiefly in the exchange of furs for teas on the Chinese frontier, the Government received large sums through the duty collected on such teas.

Paid no royalty.

In short, the Company administered both government and trade throughout the whole of the territory over which it was given control.[1]

Summary.

[1] See in reference to all that has been said regarding the rights, obligations, and government of the Russian American Company: Regulations of the United American Company, Tikhmenief, vol. I, app., pp. 1–19; Charter of 1799, Vol. I, p. 14; ukase and charter of 1821, vol. I, pp. 16 and 24; "Additional Facts relating to the Russian American Company," Vol. I, p. 9; Tikhmenief, vol. II, app., pp. 17–63.

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## THE UKASE OF 1821.

Ukase of 1821 and second charter of the Company.

On the 4th of September, 1821, this famous ukase was made public, and nine days later, on the 13th of September, 1821, the Emperor renewed with certain additions for another term of twenty years the charter and privileges granted in 1799 to the Russian American Company. Both the ukase and the new charter appear in full in the Appendix.[1]

Purpose of the ukase.

The objects which were sought to be obtained by the promulgation of the ukase appear from the recital prefixed to it, which is as follows: "Observing from Reports submitted to US that the trade of OUR subjects on the Aleutian Islands and on the North West Coast of America appertaining unto Russia is subjected, because of secret and illicit Traffic, to oppression and impediments; and finding that the principal cause of these difficulties is the want of Rules establishing the Boundaries for Navigation along these Coasts, and the order of Naval Communication as well in these places as on the whole of the Eastern Coast of Siberia and the Kurile Islands, we have deemed it necessary to determine these Communications by specific Regulations which are hereto attached."

[1] Vol. I, pp. 16, 24.

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Its title and first two sections are as follows: Its title and first two sections.

"Rules established for the Limits of Navigation and order of Communication along the Coast of Eastern Siberia, the Northwest Coast of America, and the Aleutian, Kurile, and other Islands.

"§ 1. The pursuits of Commerce, whaling, and fishery, and of all other Industry on all Islands, Ports, and Gulfs, including the whole of the Northwest Coast of America, beginning from Bering's Straits to the 51° of Northern Latitude, also from the Aleutian Islands to the Eastern Coast of Siberia, as well as along the Kurile Islands, from Bering's Straits to the South Cape of the Island of Urup, viz, to the 45° 50′ Northern Latitude, is exclusively granted to Russian subjects.

"§ 2. It is, therefore, prohibited to all Foreign Vessels, not only to land on the Coasts and Islands belonging to Russia as stated above; but also to approach them within less than a Hundred Italian Miles.[1] The Transgressor's Vessel is subject to confiscation along with the whole Cargo."

The reason why the limit of one hundred miles was chosen appears from a letter written by Mr. Reason why limit of 100 miles chosen.

[1] An Italian mile is the equivalent of a geographical mile, of which there are sixty to a degree.

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Reason why limit of 100 miles chosen.

Middleton, United States Minister at St. Petersburg, to the Secretary of State, dated August 8, 1822, giving an account of an interview with the Governor-General of Siberia, who had been one of the committee originating this measure. The Governor-General said it was sought to establish "limits to the marine jurisdiction on their coasts, such as should secure to the Russian American Fur Company the monopoly of the very lucrative profit they carry on. In order to do this they sought a precedent, and found the distance of thirty leagues, named in the Treaty of Utrecht, and which may be calculated at about one hundred Italian miles, sufficient for all purposes."[1] As a similar and more recent precedent, though not for so great an extent of sea jurisdiction, might have been cited the fourth article of the Nootka Sound convention between Great Britain and Spain, already referred to, whereby the former conceded to the latter exclusive jurisdiction of the sea for ten leagues from any part of the coasts already occupied by Spain.[2]

This limit enabled Russia to protect seal herd of Pribilof Islands.

The Pribilof Islands, the home of the Alaskan seal herd, are situated less than two hundred Italian miles from the Aleutian Chain on the south, and thus a sufficient portion of the eastern

[1] Mr. Middleton to Mr. Adams, August 8, 1822, Vol. I, p. 135.
[2] Vol. I, p. 32.

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half of Bering Sea was covered by the ukase to enable Russia to protect the herd while there.

Ukase declaratory of existing rights.

In so far as it affected that sea and its shores, Russia regarded the ukase as merely declaratory of existing rights. The board of administration of the Russian American Company, writing from St. Petersburg to the chief manager of the Russian American Colonies at Sitka on September 20, 1821, says: "With this precious act in your hand you will be enabled to assume a new position and to stand firmly opposed to all attempts on the part of foreigners to infringe upon our rights and privileges. In accordance with the will of His Imperial Majesty we will not be left to protect unaided the land and waters embraced in our exclusive privileges. A squadron of naval vessels is under orders to prepare for a cruise to the coasts of northeastern Asia and northwestern America. . . . We can now stand upon our rights, and drive from our waters and ports the intruders who threaten to neutralize the benefits and gifts most graciously bestowed upon our Company by His Imperial Majesty."[1]

[1] Vol. I, p. 59. This and other documents hereinafter cited, relating to the affairs of the Russian American Company, belong to the official records or archives of the territory which was ceded to the United States by Russia by the treaty of 1867. They came into the possession of the United States by virtue of the second article of that treaty and are now in the archives of the Department of State at Washington. Fac-similes of all the original documents referred to herein will be found at the end of Vol. I.



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In a letter dated February 28, 1822, from the board to the chief manager of the Colonies, we find the following statement: "As to fur-seals, however, since our Gracious Sovereign has been pleased to strengthen our claims of jurisdiction and exclusive rights in these waters with his strong hand, we can well afford to reduce the number of seals killed annually, and to patiently await the natural increase resulting therefrom, which will yield us an abundant harvest in the future."[1]

Under ukase of 1799 foreign vessels not permitted to hunt or trade in Bering Sea.

The official Russian records show that after the ukase or charter of 1799, granting to the Russian American Company certain exclusive control of trade and colonization, its authorities, acting under the sanction of the Russian Government, did not permit foreign vessels to visit Bering Sea. The trading and hunting rights of the Company were jealously guarded there prior and up to 1821, as will appear from the documents about to be cited; and whatever creation or extension of exclusive Russian jurisdiction was intended to be effected by the promulgation of the ukase of that year applied to the Pacific Ocean proper, and to the coasts and islands east and south of the peninsula of Alaska. The only effect which could have been intended by that

[1] Vol. I, p. 61.

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edict upon the coasts and waters of Bering Sea and the Aleutian Islands was to strengthen and confirm the jurisdiction theretofore exercised by Russia, and this is made clearly to appear from the official documents of that period.

Under ukase of 1799 foreign vessels not permitted to hunt or trade in Bering Sea.

On April 9, 1820, the Russian Imperial Minister of Finance, upon a report of a committee of ministers appointed by the Emperor to obtain information respecting the Russian American Colonies, from which report it appeared that illicit visits of foreign vessels to Alaskan waters were being made, addressed an official communication to the Imperial Minister of Marine, in which, after referring to this report, he states that "it appears of the most imperative necessity for the preservation of our sovereignty in the northwestern part of America and on the islands and waters situated between them, to maintain there continuously two ships of the Imperial fleet." He suggests that these two vessels should be dispatched during that year, one to cruise from Sitka westward and northward, and after "having thoroughly examined the shores of the Aleutian Islands, the coast of Kamchatka, the Kurile Islands and the intervening waters," to winter in Petropavlovsk on the Asiatic coast. "The other ship, however, (sailing from Petropavlovsk), having examined the eastern coast of the Kamchatka

Request of Minister of Finance in 1820 and 1821 that cruisers be dispatched to protect Company's interests in Bering Sea.

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Request of Minister of Finance in 1820 and 1821 that cruisers be dispatched to protect company's interests in Bering Sea.

peninsula up to 62° of northern latitude, and the west coast of America from this latitude to the island of Unalaska, and the intervening waters (Bering Sea), should proceed to Kadiak and from there to Sitka for the winter. The object of the cruising of two of our armed vessels in the localities above mentioned is the protection of our Colonies and the exclusion of foreign vessels engaged in traffic or industry injurious to the interests of the Russian Company as well as to those of the native inhabitants of those regions."

In the following year, 1821, two similar ships were to be dispatched, and in "this manner two ships of war would always be present in the Colonies and the Company would be assured of their protection."[1]

Killing of fur-seals at sea to be prevented.

The board of administration of the Russian American Company, writing March 15, 1821, from St. Petersburg to the chief manager of the Colonies at Sitka, with full knowledge of the report of the committee of ministers and the action of the Ministers of Finance and of Marine of the year previous, clearly intimates the duty these war ships were to perform. In giving instructions as to the management of the fur-seals on the Pribilof Islands, it says: "We must

[1] Vol. I, p. 49.

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suppose that a total suspension of killing every fifth year will effectually stop the diminution of the fur-seals, and that it will be safe at the expiration of the close season to resume killing at the rate mentioned above (fifty thousand annually). By a strict observance of such rules, and a prohibition of all killing of fur-seals at sea or in the passes of the Aleutian Islands, we may hope to make this industry a permanent and reliable source of income to the Company, without disturbing the price of these valuable skins in the market."[1]

Killing of fur-seals at sea to be prevented.

In 1819 Riccord, the then commander of Kamchatka, acting under advice of one Dobello, a foreigner in the employ of the Russian Government, granted to an Englishman named Pigott the right for ten years to hunt whales on the coast of Eastern Siberia.[2] This grant was at once repudiated by the Government. A considerable amount of correspondence resulted, which illustrates the complete control which Russia claimed and actually exercised over Bering Sea prior to 1821, and how jealous she and her chartered Company were of the intrusion of foreigners.

The Pigott affair. Certain contracts with foreigners annulled. Control exercised over Bering Sea prior to 1821.

Under date of April 10, 1820, the Minister

[1] Vol. I, p. 58.

[2] Tikhmenief, vol I, pp. 192-200.

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The Pigott affair, continued.

of Finance wrote to the board of administration of the Russian American Company for its guidance in part as follows: "The commander of the government of Irkutsk is hereby instructed to forbid any foreigners, except such as have become Russian subjects, to enter the mercantile guilds, or to settle in business in Kamchatka or Okhotsk; also to entirely prohibit foreign merchant vessels from trading in these localities and from anchoring in any port of Eastern Siberia, except in the case of disaster. . . . It is hereby ordered that the local authorities shall inform the Englishman Davis at Okhotsk and Dobello's agent in Kamchatka that the Government does not permit them to reside in those places, much less to erect buildings or other immovable property."

In the same dispatch the minister said: "Having for the benefit of the American Company excluded all foreigners from Kamchatka and Okhotsk and prohibited them from engaging in trade and from hunting and fishing in all the waters of Eastern Siberia, the Government fully expects that the Company, on its part, will hold itself responsible for supplying those regions with all necessaries." And again: "In conclusion, it is stated as the decision of His Majesty,

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the Emperor, in view of possible future complications of this nature, that no contracts involving the free admission or navigation for trade of foreign ships or foreign subjects in the waters adjoining or bounded by the coasts of Russian colonies will be approved by the Imperial Government."[1]

Foreigners prohibited from visiting waters frequented by sea-otters and fur-seals.

On April 23, 1820, the board of administration of the Company at St. Petersburg wrote to the chief manager of the Colonies at Sitka, and, after reciting the contents of the foregoing letter, continued: "As soon as the Imperial Government ascertained that the contracts made (viz., those with Pigott) were in open violation of the privileges granted the Company, it prohibited at once all foreigners not only from settling in Kamchatka and Okhotsk, but also from all intercourse with those regions, enjoining the authorities to maintain the strictest surveillance over their movements. Basing your own action upon this proceeding of our Highest Protector, you, as commander of all our Colonies, must prohibit with equal strictness all foreigners from engaging in any intercourse or trade with native inhabitants, as well as from visiting the waters frequented by sea-otters and fur-seals, over which our operations extend, under penalty of the most severe measures, including the confiscation of

[1] Vol. I, p. 51.

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Foreigners prohibited from visiting waters frequented by sea-otters and fur-seals.

ships and the imprisonment of crews engaged in this illegal traffic. You must act with the greatest severity in cases where foreigners have sold to the natives arms, powder, and lead. They must be made to understand that their presence in our waters is contrary to our laws, and that they will never be admitted to any port unless you or your subordinates convince yourselves that such is necessary for the saving of life. In a word, you must preserve an attitude in full accord with the views of the Imperial Government on this subject, and protect against all intruders the domain of land and water granted to us by the grace of the Emperor and necessary for our continued existence and prosperity. You must transmit these instructions without delay to your subordinate commanders for their conduct in their intercourse with foreigners, and especially to the commanders of ships navigating our waters, to enable them to drive away the foreign intruders."[1]

The Pigott affair, continued.

This question of the contract with foreigners was again referred to in a letter from the board of administration to the chief manager of the Colonies, March 31, 1821. Speaking of Messrs. Riccord, Dobello, and Pigott, it is said: "From

[1] Vol. I, pp. 53, 54.

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the copy herewith inclosed of communications from the ministries, you will see that the Imperial Government not only repudiated Messrs. Riccord, Dobello, and Pigott, but also prohibited them altogether from trading in Okhotsk and Kamchatka, with the result that to-day the foreigners have abandoned their enterprise in that region, and no other foreigners will be allowed to visit these places in the future. The principles involved in this action of the Government you must also observe in dealing with foreigners who may visit our Colonies, using all the force at your command to drive them from our waters. Together with our new privileges, which have already been promulgated by the minister and which are only awaiting the return of our Monarch, we shall also receive definite instructions how to deal with foreigners who venture to cross the limits of possessions acquired long ago through Russian enterprise and valor."[1]

The Pigott affair, continued.

It thus appears from the foregoing citations that, so far as it concerned the coasts and waters of Bering Sea, the ukase of 1821 was merely declaratory of preëxisting claims of exclusive jurisdiction as to trade, which had been enforced therein for many years. The ukase of 1799, which set forth a claim of exclusive Russian juris-

Summary.

Protests directed to claim of jurisdiction over Pacific Ocean and to claim to coast of continent.

[1] Vol. I, p. 55.



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Protests directed to claim of jurisdiction over Pacific Ocean and to claim to coast of continent.

diction as far south as latitude 55°, called forth no protest from any foreign powers, nor was objection offered to the exclusion of foreign ships from trade with the natives and hunting fur-bearing animals in the waters of Bering Sea and on the Aleutian Islands as a result of that ukase and of the grant of exclusive privileges to the Russian American Company. It was only when the ukase of 1821 sought to extend the Russian claim to the American continent south to latitude 51°, and to place the coasts and waters of the ocean in that region under the exclusive control of the Russian American Company, that vigorous protests were made by the Governments of the United States and Great Britain. And the correspondence which grew out of those protests[1] shows that they were inspired by the claim of jurisdiction over large portions of the Pacific Ocean (as distinguished from Bering Sea) and by the conflicting claims of the three nations to the coast over which Russia sought to extend exclusive authority. The United States and Great Britain had for years before the publication of that ukase been competitors for the trade and the ownership

[1] Vol. I, pp. 132–152. Only such portion of the correspondence between Great Britain and Russia is given, as was inclosed in Lord Salisbury's note to Sir Julian Pauncefote, dated August 2, 1890, Vol. I, p. 242.

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of the coasts and islands lying between latitudes 51° and 55°, on what was known as the Northwest Coast, and their citizens and subjects had been actively engaged with their ships in hunting and trading on those shores and waters, and it was natural that they should vigorously protest against the attempt of Russia to exclude them from that region. On the other hand there is no record that such hunting or trading had ever been carried on by them within Bering Sea. The history of the period and the locality, the discussion which followed the ukase, and the treaties which were the result of it, attest that the object of both the United States and Great Britain in contesting the pretensions of Russia in this matter was to maintain their respective claims to the territory indicated, to preserve intact their valuable trade with the natives on the Northwest Coast, and to enjoy the free navigation of the Great Ocean which washed that coast.[1]

Protests directed to claim of jurisdiction over Pacific Ocean and to claim to coast of continent.

## THE TREATIES OF 1824 AND 1825.

The controversy which followed the promulgation of the ukase of 1821 resulted in a treaty between the United States and Russia in 1824,[2]

Settled the twofold dispute.

[1] See Vivien de Saint-Martin, vol. I, p. 56.
[2] Vol. I, p. 35.

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Settled two-fold dispute.

and one between Great Britain and Russia in 1825.[1] These two treaties settled the twofold dispute which had been raised by the ukase, namely, first, the maritime dispute; second, the territorial dispute relating to the Northwest Coast.

Bering Sea not included in terms used to denote Pacific Ocean.

The maritime dispute was settled by the first articles. That of the British treaty was, at the request of the British negotiators,[2] copied almost verbatim from the corresponding article of the American treaty, and the latter was based upon the third article of the convention of 1790 between Great Britain and Spain.[3]

That the term "Great Ocean, commonly called the Pacific Ocean or South Sea," used in article I of the treaty of 1824 with the United States, and the term "The Ocean, commonly called the Pacific Ocean," used in article I of the treaty of 1825 with Great Britain, did not apply to and include Bering Sea, is shown by a study of the maps, charts, and writings of navigators[4] at the time of and prior to the negotiation and celebra-

[1] Vol. I, p. 39.

[2] Letter G. Canning to S. Canning, Dec. 8, 1824, Vol. I, p. 260.

[3] Vol. I, p. 32.

[4] Burney, speaking of the "line of boundary which seems designed by nature for this great sea," says: "The northern limits are marked by the continuation of the American Coast from Mount St. Elias towards the west with the chain of islands called the Fox and the Aleutian Islands." Burney's Chronological History of the Discoveries in the South Sea or Pacific Ocean, London, 1803, vol. I, p. 2.

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tion of these treaties. A list of these maps and charts is appended hereto,[1] and a careful examination of the same is invited. It will be seen from them that the best geographers have at all times distinguished this body of water from the ocean lying south of it by conferring upon it some separate name, in most cases either that of Sea of Kamchatka, Bering Sea, Northeastern Sea, or Eastern Ocean.[2]

Express declarations of Russian Government on this subject.

But in addition to the correspondence attending the negotiations, the text of the treaties themselves, and the authority of navigators, attention is invited to the express declarations of the Russian Government on the subject during the negotiations and after the treaties had been celebrated.

On July 18, 1822, the Imperial Minister of Finance addressed to the board of administration of the Russian American Company a communication in which, referring to the protests which had been made against the ukase of 1821 and to the negotiations on the subject with the United States having in view some modification of the ukase, he says: "The rules to be pro-

[1] Vol. I, p. 287.

[2] As to "Sea of Kamchatka" and "Bering Sea," see quotation *infra* from the letter dated July 18, 1822, from the Minister of Finance to the board of administration. As to "Northeastern Sea," see first and third charters of the Company, Vol. I, pp. 14, 28. As to "Eastern Ocean," see Coxe, map (frontispiece).

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posed will probably imply that it is no longer necessary to prohibit the navigation of foreign vessels for the distance mentioned in the edict of September 4, 1821, and that we will not claim jurisdiction over coastwise waters beyond the limits accepted by any other maritime power for the whole of our coast facing the open ocean. Over all interior waters, however, and over all waters inclosed by Russian territory, such as the Sea of Okhotsk, Bering Sea, or the Sea of Kamchatka, as well as in all gulfs, bays, and estuaries within our possessions, the right to the strictest control will always be maintained."[1]

Declaration made immediately before treaty with Great Britain.

Soon after the conclusion of the treaty of 1824 with the United States the directors of the Russian American Company applied to the Imperial Government for a correct interpretation of the same. A special committee, consisting of some of the highest dignitaries of the Empire, was appointed, and July 21, 1824, it issued a report of its proceedings signed by Count Nesselrode and others.[2] The seventh paragraph of this report reads as follows: "That since the sovereignty of Russia over the shores of Siberia and America as well as over the Aleutian Islands and

[1] Vol. I, p. 62.

[2] Russian Minister of Finance to the board of the Russian American Company, Sept. 4, 1824, and accompanying report, Vol. I, pp. 67–71.

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the intervening sea has long since been acknowledged by all powers, these coasts, islands, and seas just named could not have been referred to in the articles of the above-mentioned convention, which latter concerns only the disputed territory on the Northwest Coast of America and the adjoining islands, and that in the full assurance of such undisputed right Russia has long since established permanent settlements on the coast of Siberia as well as on the chain of the Aleutian Islands; consequently American subjects could not, on the strength of article II of the convention of April 5–17, have made landings on the coast, or carried on hunting and fishing without the permission of our commanders and governors. These coasts of Siberia and of the Aleutian Islands are not washed by the Southern or Pacific Ocean, of which mention is made in article I of the convention, but by the Arctic Ocean and the Seas of Kamchatka and Okhotsk, which, on all authentic charts and in all geographies, form no part of the Southern or Pacific Ocean."[1]

Declaration made immediately before treaty with Great Britain.

To fully appreciate the significance of the foregoing declaration, it must be remembered

[1] The explanatory note presented Dec. 6, 1824, by Baron de Tuyll to Mr. Adams, reference to which is made in Mr. Blaine's note to Lord Salisbury of Dec. 17, 1890 (Vol. I, pp. 263, 276), was a result of the report from which the foregoing paragraph is quoted; and this very paragraph was clearly used as the basis for the explanatory note.

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not only that it was made in response to a request of the Russian American Company for an interpretation of the American treaty, but, what is more important, that it was made shortly before the signing of the treaty with Great Britain, in which, therefore, the Russian negotiators did not consider it necessary (any more than they had considered it necessary in the former) to declare that Bering Sea was not a part of the Pacific Ocean, in which latter the right of free fishing was recognized to exist.

Treaties recognized by implication rights claimed by Russia over Bering Sea.

So far, therefore, from the terms of these treaties revoking or limiting the jurisdiction previously exercised by Russia over Bering Sea, there is inherent evidence in all those instruments, as well as in the negotiations which preceded them, that no such revocation or limitation was sought, conceded, or obtained by the high contracting parties. Russia was quick to notice that her assumption of control over the waters of the North Pacific Ocean was untenable; she therefore acknowledged this by the first articles of the two treaties in question. But neither in the protests, negotiations, nor treaties is any reference found to Bering Sea, and it must be conceded from a study of those instruments and the subsequent events that the question of jurisdictional rights over its waters was left where it

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had stood before the treaties, except that the exercise of these rights by Russia had now, through these treaties, received the implied recognition of two great nations; for while, by the ukase of 1821, Russia had publicly claimed certain unusual jurisdiction both over Bering Sea and over a portion of the Pacific Ocean, yet in the resulting treaties, which constituted a complete settlement of all differences growing out of this ukase,[1] no reference is made to this jurisdiction so far as it related to Bering Sea, although it is expressly and conspicuously renounced as to the Pacific Ocean.

Treaties recognized by implication rights claimed by Russia over Bering Sea.

The burden is thus placed upon Great Britain to show that this jurisdiction, recognized in the year 1825 to exist, has been lost. It is not claimed that it was exercised for all purposes. Russia never sought to prevent vessels from passing through Bering Sea in order to reach the Arctic Ocean; nor did she always strictly enforce the prohibition of whaling within the distance of one hundred miles from its shores; but, so far as the fur-seals are concerned, it will be made to appear in what follows that the jurisdiction in question was always exercised for their protection.

Burden upon Great Britain to show that these rights have been lost.

[1] Section 8 of the "Proceedings of the Conference," Vol. I, p. 68.



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By treaties Russia relinquished large portion of coast claimed.

With regard to what may be termed the territorial dispute, it appears from an examination of the correspondence and treaties that the southern boundary of the Russian territories was fixed at latitude 54° 40′ N., whereby she relinquished a large portion of the Northwest Coast which she had claimed by the ukase of 1821, and that the coasts, interior waters, etc., upon and in which the United States and Great Britain were allowed to trade for ten years without restrictions, were limited on the west by Yakutat Bay and Mount St. Elias; that is to say, that this right was restricted to the coast line, concerning the ownership of which there may have been some possible dispute.[1] The specific declarations in the British treaty of 1825 as to the line of coast and water to which access and trade were thus granted leave no room for doubt as to what coast was intended; and that the above limitation was understood by Russia is expressly stated by the Minister of Finance in his communication of September 4, 1824, already cited.

It may be mentioned here that at the expiration of this ten year clause, both the United States and England made strenuous but futile

[1] Art. IV of the treaty of 1824 and art. VII of the treaty of 1825. Compare art. III of the treaty of 1818 between the United States and Great Britain, Vol. I, p. 34.

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efforts to obtain a renewal of its provisions.[1] The United States expressly recognized that after 1834 this clause had ceased to be operative, as is proved not only by their course in the case of the *Loriot*,[2] but more particularly by the fact that in 1845, at the request of the Russian Government, they caused to be published a notice,[3] reminding the owners of American vessels of the prohibition of trade which existed in regard to the coast in question.

Russia's object in excluding Bering Sea from effect of treaties was protection of fur industry.

The great object had in view by the Russian Government in excluding Bering Sea from the effect of the treaties of 1824 and 1825, and also in limiting the privilege of access and trade for even ten years to the coast south and east of Yakutat Bay, was obviously the protection of the valuable fur industry, the right to derive profit from which was the exclusive franchise of the Russian American Company. This is apparent in all the correspondence between the Government and the Company following the protests against the ukase and attending the negotiations of the treaties. The Minister of Finance

[1] The diplomatic correspondence between the United States and Russia relating hereto is contained in the documents accompanying the message of the President of the United States to Congress, December 3, 1838, and in Senate Ex. Doc. No. 106, pp. 223–246.

[2] Note of Mr. Blaine to Sir Julian Pauncefote, June 30, 1890, Vol. I, p. 224.

[3] Vol. I, p. 91.

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Russia's object in excluding Bering Sea from effect of treaties was protection of fur industry.

in his communication of July 18, 1822, to the board of administration wrote, in view of a proposed modification of the ukase, as follows: "At the same time I am authorized to assure you that every effort will be made to secure the adoption of such rules as will effectually protect the Russian American Company from inroads on the part of foreigners upon their vested privileges, in strict conformity not only with the privileges granted by highest act, but also with the edict of September 4, 1821."[1]

Under date of April 11, 1824, Count Nesselrode, Chancellor of the Empire, wrote to N. S. Mordvinof, of the board of administration, in part as follows: "It is hardly necessary for me to repeat that in all these negotiations with England we have recognized, and always will recognize, the paramount importance of the interests of the Russian American Company in this matter."[2]

Under date of August 18, 1824, Count Nesselrode, in communicating the report of the committee, already noticed, to the Minister of Finance, wrote: "I flatter myself with the thought that these documents will convince you, most gracious sir, as well as the board of administration of

[1] Vol. I, p. 63.
[2] Vol. I, p. 65.

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the Russian American Company, that it is His Majesty's firm determination to protect the Company's interests in the catch and preservation of all marine animals, and to secure to it all the advantages to which it is entitled under the charter and privileges."[1]

## PERIOD BETWEEN THE TREATIES AND THE CESSION OF ALASKA TO THE UNITED STATES IN 1867.

Russia continues to exercise control over Bering Sea.

In addition to the foregoing, there is found positive confirmation that by the treaties of 1824 and 1825 Russia did not surrender her claim to exclusive control of trade, and especially of the fur industry, in Bering Sea, in the fact that the same control over the waters of that sea was enforced after the date of those treaties as before.

Third charter of Company.

The second charter of the Russian American Company, which was granted for a period of twenty years, was confirmed in 1829,[2] except in so far as it had been modified by the treaties of 1824 and 1825, and was thus renewed with all its exclusive franchises for another period of twenty years on the 1st day of January, 1842. The new charter will be found in the Appendix.[3]

[1] Vol. I, p. 68.
[2] Vol. I, p. 27.
[3] Vol. I, p. 28. The charter was not actually issued until Oct. 14, 1844.

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Third charter of Company.

Its first section is as follows: "The Russian American Company, established for trading on the continent of Northwestern America, and on the Aleutian and Kuriles Islands, and in every part of the Northeastern Sea, stands under the most high protection of His Imperial Majesty."

High value placed by Company upon fur-seal industry.

After this charter was granted, the Government continued to protect the sealing interests of the Company in Bering Sea, and of these the board at St. Petersburg wrote March 31, 1840, to the chief manager of the Colonies: "You will bear in mind that we look upon the fur-seal catch as the most important item of our colonial enterprises, which must be preserved at all hazards, even to the temporary neglect of other resources. Everything must be done to prevent a decrease or the extermination of these valuable animals."[1]

And March 20, 1853, the board, in writing to the chief manager of the Colonies, again used similar language in a letter more fully referred to below: "The board of administration respectfully requests that, in case the interests of the Company require a deviation from your plans, your excellency will never lose sight of the fact that the interests of the Company are centered at the present time in the district surrounding the

[1] Vol. I, p. 71.

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seal islands of the Pribilof and Commander groups, and that consequently the colonial waters must be visited by the Company's cruisers constantly and in every part, in order to watch and warn the foreign whalers."[1]

Waters frequented by fur-seals patrolled by armed cruisers.

The communication just cited throws much light upon the commercial activity of the Russian American Company, and may be accepted as indicative of the methods by which, during the last term of its charter, it enforced its control "in the colonial waters" of its interests "centered at the present time in the district surrounding the seal islands of the Pribilof group." It appears that during those years the Company gave employment to eight ships in the summer, and in the winter to seven, without counting its whale ships. Referring to the duties of one of its officials, who was to inspect certain of its stations, it is said: "This agent must observe and keep a record of all foreign ships seen during the voyage, and of the position of the same when observed, for the information of commanders of our armed cruisers and of the colonial authorities in Sitka, Kamchatka, and Ayan."

In the same letter is contained the following protective scheme, which had been adopted by

[1] Vol. I, p. 72, 74.

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Waters frequented by fur-seals patrolled by armed cruisers.

the Company, and which was to be carried out by its vessels during the summer of 1854:

"2. One of the larger vessels should leave the port of New Archangel (Sitka) for Ayan not later than the 15th of May, to arrive at the latter port at the end of June. This ship, which must be armed, will carry passengers, stores, and supplies for our Asiatic stations. On the outward voyage, the course of this vessel should be laid to the northward of the chain of the Aleutian Islands, in order to meet foreign ships entering Bering Sea and to warn them against cruising in pursuit of whales in the vicinity of the seal islands of the Pribilof and Commander groups. . . .

"3. A second small vessel, the swiftest of the fleet, probably the *Menshikof*, with a naval crew and commanded by a naval officer, must sail from Sitka at the end of April for the sole purpose of watching the foreign whale ships in the southern part of Bering Sea and along the chain of the Aleutian Islands On this vessel supplies may be forwarded to Copper and Bering Islands and perhaps to Attu and Atka. . . . This vessel must be kept cruising constantly over the waters mentioned above, and must not enter any of the harbors except for the purpose of obtaining water and wood, on which occasions the stay of the

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vessel must be limited to the briefest possible period. Each of the above-mentioned islands must be visited by this cruiser at least twice during the season. . . . The conclusion of this cruising voyage depends upon the time at which the foreign whale ships leave Bering Sea, which is probably at the end of August or the beginning of September. . . .

Waters frequented by fur-seals patrolled by armed cruisers.

"5. The second large vessel must be employed to supply the islands of the Unalaska district, the Pribilof Islands, and St. Michael's redoubt, and also to carry on intercourse with the coast tribes of Bering Sea on the Asiatic as well as on the American coasts. . . . During the whole time of the presence of this ship in the northern part of Bering Sea and the vicinity of the Pribilof Islands, the commander must be charged with the duty of cruising in search of foreign whale ships and of English vessels carrying on trade with our savages. This ship, also, must make no prolonged stay at any anchorage, and must be placed under the command of a naval officer, with a crew consisting principally of sailors of the navy. . . .

"7. The fourth large vessel of the fleet, which may be used for voyages to Kamchatka, must also be fitted out as an armed cruiser, and kept in readiness to proceed to any point in Bering



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Waters frequented by fur-seals patrolled by armed cruisers.

Sea or in Siberian waters, from which the presence of foreign ships may be reported by the smaller vessels in the course of the season. . . .

"In transmitting to your excellency the above outlined plan for the employment of the colonial fleet, the board of administration respectfully requests that, in case the interests of the Company require a deviation from our plans, your excellency will never lose sight of the fact that the interests of the Company are centered at the present time in the district surrounding the seal islands of the Pribilof and Commander groups, and that consequently the colonial waters must be visited by the Company's cruisers constantly and in every part, in order to watch and warn the foreign whalers. For this purpose detailed instructions have been formulated for our cruisers, as well as for the commanders of the whale ships of the Company, which are obliged to serve in the capacity of cruisers when engaged in whaling in Bering Sea. In all cases, the command of a vessel under orders to cruise in colonial waters must be given to naval officers, who will thereby find an opportunity to make themselves acquainted with the routine of colonial transactions, while at the same time their rank will give authority to our proceedings."[1]

[1] Vol. 1. p. 72.

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Under date of June 20, 1861, the chief manager of the Colonies wrote to Benzeman, of the Imperial navy, commanding the steamer *Alexander the Second*, in part, as follows: "It has come to my knowledge that in the present year two whaling vessels have sailed from San Francisco for the purpose of trading on the Pribilof Islands or of hunting in their vicinity. Consequently I would suggest that during your presence in those waters you will exercise the duties of an armed cruiser, to prevent any unlawful acts on the part not only of these vessels, but of any others which you may find in Bering Sea."[1]

Further instructions as to cruising.

Lastly, there was issued from Sitka in the year 1864 the following proclamation: "It is hereby proclaimed to all whom it may concern, that if any person or persons after reading these presents does not immediately abandon Russian territory or waters, or if they continue forbidden trade or traffic, they shall be seized immediately upon the arrival of the first Russian vessel upon the scene of their illegal transactions and taken for trial to New Archangel (Sitka); and all goods, as well as the vessel found in possession of such persons, shall be confiscated."[2]

Proclamation of 1864 as to trade in Russian territory and waters.

[1] Vol. I, p. 74.
[2] Vol. I, p. 80.

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Whaling company prohibited from visiting waters frequented by fur-seals.

In 1850 there had been granted to the Russo-Finnish Whaling Company a charter which contained the following provision: "The ships of the Whaling Company entering the ports of the Russian American Company are subject to harbor regulations established for the guidance of all shipping, but they must not anchor or cruise in waters where the presence of ships or the pursuit of whales may alarm any marine animals or interfere with the regulations of the Company for their protection and increase."[1]

While the foregoing only purports to be a municipal regulation, yet it is useful as furnishing another illustration of the constant protection which the Russian Government extended to its seal herds.

Period from 1862 to 1867.

The third charter of the Russian American Company expired in 1862, but the Company nevertheless continued to operate under it pending the decision of the question of its renewal for another term. With regard to the latter it was at first, in 1865, decided to extend the Company's privileges only to the region about Bering Sea;[2] but the following year it was determined by the Council of State, in an opinion which will be

[1] Sec. II, § 9. The full text of the charter will be found in Tikhmenief, vol. II, app. p. 1 *et seq.*

[2] Letter from the Department of Commerce and Manufactures to the board, June 19, 1865, containing report of the Minister of Finance, Vol. I, p. 75.

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found in the Appendix,[1] that "the exclusive right of the Company to engage in the fur trade throughout the entire colonial territory shall be continued." No new charter, however, was granted, for the year following witnessed the transfer of the territory of Alaska to the United States.

Period from 1862 to 1867.

From the foregoing historical review it appears:

Conclusions from foregoing review.

First. That prior and up to the date of the treaties of 1824 and 1825, Russia did assert and exercise exclusive rights of commerce, hunting, and fishing on the shores and in all the waters of Bering Sea.

Second. That the body of water known as Bering Sea was not included in the phrase "Pacific Ocean," as used in the treaty of 1825.

Third. That after said treaty of 1825 the Russian Government continued to exercise exclusive jurisdiction over the whole of Bering Sea up to the time of the cession of Alaska to the United States, in so far as was necessary to preserve to the Russian American Company the monopoly of the fur-seal industry, and to prohibit the taking on the land or in the water by any other persons or companies of the fur-seals resorting to the Pribilof Islands.

Fourth. That before and after the treaty of 1825, and up to the date of the cession of Alaska

[1] Vol. I, p. 79.

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to the United States, British subjects and British vessels were prohibited from entering Bering Sea to hunt fur-seals, and that it does not appear that the British Government ever protested against the enforcement of this prohibition.

## CESSION OF ALASKA TO THE UNITED STATES BY THE TREATY OF 1867.

Russia ceded to United States a portion of Bering Sea. No objection made.

On March 30, 1867, the Governments of the United States and Russia celebrated a treaty, whereby all the possessions of Russia on the American continent and in the waters of Bering Sea were ceded and transferred to the United States.[1] This treaty, which, prior to its final consummation, had been discussed in the Senate of the United States[2] and by the press, was an assertion by two great nations that Russia had heretofore claimed the ownership of Bering Sea, and that she had now ceded a portion of it to the United States; and to this assertion no objection is ever known to have been made.

Boundaries of territory ceded.

Article I of this treaty establishes the boundaries of the territory ceded. It takes for the eastern boundary the line of demarcation

[1] Vol. I, p. 43.

[2] House Ex. Doc. No. 177, Fortieth Congress, second session, pp. 124 *et seq.*

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Boundaries of territory ceded.

between the Russian and the British possessions in North America, as that line was established by the British-Russian treaty of 1825.[1] On the west the line of demarcation is stated as follows: "The western limit, within which the territories and dominion conveyed are contained, passes through a point in Behring's Straits on the parallel of sixty-five degrees thirty minutes north latitude, at its intersection by the meridian which passes midway between the island of Krusenstern, or Ignalook, and the island of Ratmanoff or Noonarbook, and proceeds due north, without limitation, into the same Frozen Ocean. The same western limit, beginning at the same initial point, proceeds thence in a course nearly southwest, through Behring's Straits and Behring's Sea, so as to pass midway between the northwest point of the island of St. Lawrence and the southeast point of Cape Choukotski, to the meridian of one hundred and seventy-two west longitude; thence, from the intersection of that meridian, in a southwesterly direction, so as to pass midway between the island of Attu and the Copper Island of the Komandorski couplet or group in the North Pacific Ocean, to the meridian of one hundred and ninety-three degrees west longitude, so as to

[1] Vol. I, p 39.

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include in the territory conveyed the whole of the Aleutian Islands east of that meridian."

Cession unincumbered.

Article VI contains the following stipulation: "The cession of the territory and dominion herein made is hereby declared to be free and unincumbered by any reservations, privileges, franchises, grants, or possessions by any associated companies, whether corporate or incorporate, Russian, or any other, or by any parties, except merely private individual property holders; and the cession hereby made conveys all the rights, franchises, and privileges now belonging to Russia in the said territory or dominion, and appurtenances thereto."

Russia's rights over sealeries passed to United States

The conclusion is irresistible from a mere reading of this instrument that all the rights of Russia as to jurisdiction and as to the sealeries in Bering Sea east of the water boundary fixed by the treaty of March 30, 1867, passed unimpaired to the United States under that treaty. In fact, the British Government has announced its readiness to accept this conclusion without dispute.[1]

Review of jurisdiction exercised by Russia and her motives therefor.

The jurisdiction which Russia exercised over Bering Sea for a century prior and up to the date of the transfer of a portion of its coasts and waters to the United States has been so fully set forth that

[1] Lord Salisbury to Mr. Blaine, Feb. 21, 1891, Vol. I, p. 294.

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Review of jurisdiction exercised by Russia and her motives therefor.

no further amplification seems necessary. The controlling motive which inspired the exercise of this jurisdiction is also apparent from the foregoing historical review. It has been shown herein that the Russian American Company possessed a monopoly of the commerce of Russian territory in America, and administered its political affairs under the direction of the Imperial Government. It has also been seen that the great source of wealth of the Russian American Company was the fur-seals of the Pribilof Islands in Bering Sea, and that so jealously was this source of wealth guarded by the orders and authority of the Imperial Government that foreign vessels were prohibited from hunting seals in any part of Bering Sea, or in the passes of the Aleutian Islands; and that for the enforcement of this prohibition cruisers were employed in patrolling that sea so long as it remained Russian territory.

Value of furs taken prior to cession

A high authority on the subject estimates the value of the furs (largely of seals) which were marketed by the Russians up to 1823 at a sum equal to about thirty-five million dollars[1]; and the same authority states that the furs taken and lost at sea and otherwise in those years exceeded the number which reached a market. Veniaminof, the Russian bishop, in his work on the

[1] Berg, p. 168.



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Value of furs taken prior to cession.

Pribilof Islands, on account of the great wealth derived from their annual harvest of furs, speaks of them as the "golden islands."[1] The tables which will be found in the Appendix[2] set forth the vast quantities of fur skins which were exported from the Colonies during the period of the Russian occupancy and how greatly they exceeded all other sources of revenue of the Russian American Company.

Their value well known to American negotiators, and the chief inducement for purchase of Alaska.

Their value was well known to the American negotiators of the treaty of 1867, and while it must be admitted that political considerations entered into the negotiations to a certain extent, yet so far as revenue to the Government and immediate profit to its people were concerned, it will appear from a careful study of the incidents attending the transfer of sovereignty that it was the fur industry more than all other considerations which decided the United States to pay the sum of seven million two hundred thousand dollars required by Russia for the cession and transfer of her sovereign rights and property.

[1] Veniaminof, vol. I, p. 277: "These islands might be called *golden* on account of the high value of fur-seal and sea-otter skins shipped from there from their discovery up to the present time and of their promise for the future. · · · What an immense capital is represented by all the skins obtained from these islands, and what sums they will bring in the future, even with the present limited scope of the industry. There are not many such places in the world affording such wealth in so small a space and in return for so little exertion on the part of man."

[2] Vol. I, p. 125 *et seq.*

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Report of congressional committee upon motives for purchase and rights thereby understood to have been acquired.

In the Fiftieth Congress a committee of the House of Representatives made a long and thorough investigation into all the facts attending the fur-seal industry and other interests of Alaska, including the history of its purchase from Russia. In its report, as one of the results of its lengthy examination, the committee made the following statement: "By referring to the debate (in Congress) on the purchase of Alaska, and the contemporaneous discussion of the subject by the periodicals and newspapers of this country, it will be noticed that the acquisition of the products of Bering Sea, its fur-bearing animals and fisheries were regarded as an important if not the chief consideration for the purchase."[1]

The committee then quoted the declaration of Hon. Charles Sumner, chairman of the Committee on Foreign Relations of the Senate, in the speech which he delivered in advocacy of the approval of the treaty of 1867, as follows: "The seal, amphibious, polygamous, and intelligent as the beaver, has always supplied the largest multitude of furs of the Russian Company."[2]

The congressional committee, after making various quotations from official and other sources,

[1] House Ex. Doc. No. 3883, Fiftieth Congress, second session, p. xvii.

[2] *Ibid.* The speech will be found in House Ex. Doc. No. 177, Fortieth Congress, second session, p. 124.

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Report of congressional committee upon motives for purchase and rights thereby understood to have been acquired.

further states: "It seems to the committee to have been taken for granted that by the purchase of Alaska the United States would acquire exclusive ownership of and jurisdiction over Bering Sea, including its products,—the fur-seal, sea-otter, walrus, whale, codfish, salmon, and other fisheries; for it is on account of these valuable products that the appropriation of the purchase money was urged.

"The extracts above quoted in reference to these products are emphasized by the fact that the fur-seal fisheries alone have already yielded to the Government a revenue greater than the entire cost of the territory.

"It seems clear to the committee that if the waters of Bering Sea were the 'high seas' these products were as free to our fishermen and seal-hunters as the Russians, and there was, therefore, no reason on that account for the purchase. But it was well understood that Russia controlled these waters; that her ships of war patrolled them, and seized and confiscated foreign vessels which violated the regulations she had prescribed concerning them; and the argument in favor of the purchase was that by the transfer of the mainland, islands, and waters of Alaska we would

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acquire these valuable products and the right to protect them." [1]

Revenue received by the United States from fur-seal industry acquired from Russia.

The committee, in the report quoted, in proof of the great value of the fur-seal industry acquired from Russia, cited the fact that it had already yielded to the Government a revenue greater than the entire cost of the territory. The tables in the Appendix[2] show that there has been received by the United States Treasury directly from the lessees of the Pribilof Islands from 1870 to 1891, the sum $6,226,239; and that there has been received from import duty on the same skins after having been dressed and dyed in London approximately the further sum of $5,000,000; so that the total receipts of the United States Treasury from the Pribilof fur-seal skins have amounted to about $11,000,000. The tables appended[3] also establish the fact that fur-seal skins constitute more than half of the total value of all products obtained from Alaska from the time of the purchase in 1867 down to 1890. It thus appears that the high estimate of the fur-seals which was made at the time of the cession and purchase from Russia was not unfounded.

[1] House Ex. Doc. No. 3883, Fiftieth Congress, second session, p. xix.

[2] Vol. I, p. 130.

[3] "Notes on the Fur Industry, etc.," last paragraph. Vol. I, p. 125.

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## ACTION OF THE UNITED STATES RELATIVE TO ALASKA SINCE THE CESSION.

Rights acquired from Russia illustrated by subsequent action of United States.

Further light is thrown upon the understanding had by the Government of the United States as to the value of the fur-seal industry and its right to protect it within the territory ceded by Russia in the treaty of 1867, by an examination of the legislation of Congress enacted immediately after the transfer of this territory, of the acts of the Executive in carrying out this legislation, and of the decisions of the United States courts in regard to both.

Action of Congress.

By section 1 of the act of July 27, 1868, Congress provided "that the laws of the United States relating to customs, commerce, and navigation be, and the same are hereby, extended to and over all the mainland, islands, and waters of the territory ceded to the United States by the Emperor of Russia by treaty concluded at Washington on the thirtieth day of March, anno Domini eighteen hundred and sixty-seven, so far as the same may be applicable thereto."

Section 6 of the same act provided: "That it shall be unlawful for any person or persons to kill any otter, mink, marten, sable, or fur-seal, or

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other fur-bearing animal, within the limits of said territory, or in the waters thereof. . . ."[1] Action of Congress.

That the waters above referred to were those of the eastern half of Bering Sea not only appears from the language of the treaty itself, but also from Mr. Sumner's definition of this language publicly given in the Senate of the United States. In the speech already cited, in describing the line of demarcation drawn in the treaty through Bering Sea, he refers to it as making the western boundary of our country the dividing line which separates Asia from America; and he speaks of the waters contained within this boundary as "our part of Bering Sea."[2]

[1] The above sections have been respectively incorporated into the Revised Statutes of the United States as sections 1954 and 1956, Vol. I, p. 95.

[2] House Ex. Doc. No. 177, Fortieth Congress, second session, at p. 125. Following are extracts from the above speech: "Starting from the Frozen Ocean, the western boundary descends Behring Straits, midway between the two islands of Krusenstern and Ratmanof, to the parallel of 65° 30′, just below where the continents of America and Asia approach each other the nearest; and from this point it proceeds in a course nearly southwest through Behring Straits, midway between the island of St. Lawrence and Cape Choukotski, to the meridian of 172° west longitude, and thence, in a southwesterly direction, traversing Behring Sea, midway between the island of Attu on the east and Copper Island in the west, to the meridian of 193° west longitude, leaving the prolonged group of the Aleutian Islands in the possessions now transferred to the United States, and making the western boundary of our country the dividing line which separates Asia from America."

* * * * *

"In our part of Bering Sea there are five considerable islands, the largest of which is St. Lawrence, being more than ninety-six miles long."

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Action of Congress.

By the act of March 3, 1869, Congress provided "That the islands of St. Paul and St. George, in Alaska, be, and they are hereby, declared a special reservation for Government purposes;"[1] and on July 1, 1870, an act of Congress was approved, entitled "An Act to prevent the extermination of fur-bearing animals in Alaska,"[2] particular reference being had to the fur-seals of the Pribilof Islands.

By the use of the term "in Alaska" in the two foregoing acts, Congress clearly recognized the fact that Bering Sea was a part of the territory of Alaska, for the islands therein referred to are situated at a distance of two hundred miles from the mainland.

Action of the Executive.

The executive branch of the United States Government, in carrying out the foregoing congressional legislation, has uniformly held that the United States have authority to protect their sealing interests throughout that portion of Bering Sea contained within the western boundary referred to in the treaty of 1867.

On the 12th of March, 1881, the Treasury Department so interpreted the law in a letter written to Mr. D. A. Ancona, collector of customs at San Francisco.[3] Speaking of this western boundary,

[1] Vol. I, p. 92, (15 Stat., 348.)
[2] Vol. I, p. 92, (16 Stat., 180.)
[3] Vol. I, p. 102.

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it is said: "All the waters within that boundary to the western end of the Aleutian Archipelago and chain of islands are considered within the waters of Alaska Territory. All the penalties prescribed by law against the killing of fur-bearing animals would, therefore, attach against any violation of law within the limits before described." Action of the Executive.

This decision was confirmed by the Treasury Department April 4, 1881, and again on March 6, 1886. On this last occasion the Secretary of the Treasury wrote as follows: "The attention of your predecessor in office was called to this subject on April 4, 1881. This communication is addressed to you, inasmuch as it is understood that certain parties at your port contemplate the fitting out of expeditions to kill fur-seals in these waters. You are requested to give due publicity to such letters, in order that such parties may be informed of the construction placed by this Department upon the provision of law referred to."[1]

Since the year 1867 the Treasury Department has, every year, with a single exception, sent one or more revenue cutters to Bering Sea for the purpose of guarding the interests of the United States centered there,[2] including the protection Revenue cutters sent to Bering Sea to protect fur seal life.

[1] Vol. I, p 103.

[2] Letter of the Secretary of the Treasury to the Secretary of State, July 15, 1892, Vol. I, p. 110.



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Vessels seized in 1886 and 1887.

of fur-seals, against infractions of the law relating to them; and that this law was not regarded as a dead letter is attested by the fact that in 1886, prior to which time vessels had not entered Bering Sea in any numbers for the purpose of pelagic sealing, there were seized in those waters four vessels, three of them British, while in the following year there were seized fifteen vessels, of which six were British; the foregoing vessels, with a single exception, being found at a distance greater than three miles from any land.[1]

In 1888 unofficial assurances were given to the British Government that no seizures would be made; for at that time negotiations were being carried on looking to an amicable adjustment of the points at issue with regard to Bering Sea.[2]

Congress ratifies action of Executive.

By act of March 3, 1889,[3] Congress in effect ratified the interpretation heretofore made by the Executive as to the boundary of the United States in Bering Sea, as well as the seizures of vessels made under its orders in the years 1886 and 1887. This is apparent both from the language of the act and from the debates which preceded its enactment. Its third section is as follows: "That section 1956 of the Revised

[1] Table of vessels seized in Bering Sea, Vol. I, p 108.
[2] Mr. Edwardes to Mr. Blaine, Vol. I, p. 199.
[3] Vol. I, p. 99.

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Statutes of the United States is hereby declared to include and apply to all the dominions of the United States in the waters of Behring Sea, and it shall be the duty of the President at a timely season in each year to issue his proclamation and cause the same to be published, for one month at least, in one newspaper (if any such there be) published at each United States port of entry on the Pacific coast, warning all persons against entering such waters for the purpose of violating the provisions of said section, and he shall also cause one or more vessels of the United States to diligently cruise said waters, and arrest all persons and seize all vessels found to be or to have been engaged in any violation of the laws of the United States therein."

President's proclamation.

Annually since the enactment of this law the President of the United States has issued his proclamation accordingly,[1] and in the year 1889 the revenue cutters again seized vessels disregarding its provisions, capturing in all six, five of which were British.[2]

Vessels seized in 1889.

In the month of June, 1891, the United States and Great Britain agreed upon the *Modus Vivendi*,[3] under the terms of which both Governments undertook to protect seal life in the waters of

The *Modus Vivendi*.

[1] Vol. I, p. 112.
[2] Table of vessels seized in Bering Sea, Vol. I, p. 108.
[3] Vol. I, p. 317.

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Bering Sea, and in May, 1892, this *Modus* was renewed for the season of 1892.[1]

Action of United States courts.

Lastly, the United States courts, whenever the question has come up before them, have refused to interfere with the executive branch of the Government in its interpretation of the treaty of 1867 and of the laws of Congress enacted on the basis of what the United States acquired by this treaty. The question as to the legality of the seizures of British vessels made by the United States revenue cutters in the year 1887 within the eastern portion of Bering Sea and at a distance greater than three miles from any land came up for decision before Judge Dawson, of the United States court for the district of Alaska. The opinion, which was filed October 11, 1887, is given in full in the Appendix.[2] It will be seen by reference to it that the court held that the United States Government has authority to protect seal life throughout the eastern part of Bering Sea, included within what is termed the western boundary line in the treaty of 1867. Other decisions to the same effect will be found in the Appendix.[2]

Summary.

The foregoing references are made in order to

[1] Vol. I, p. 6.

[2] Vol. I, p. 115.

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Summary.

show: first, the understanding which existed in the United States, at the time of the purchase and cession of Alaska, as to the scope and effect of the jurisdiction exercised by Russia over the waters of Bering Sea, and the enhanced value which was thereby placed upon the fur-seal herd of the Pribilof Islands; and second, that the United States have since the purchase continued to exercise the same jurisdiction for the purpose of protecting the herd. But in determining what right of protection or property this Government has in the fur-seals frequenting the islands of the United States in Bering Sea when such seals are found outside of the ordinary three-mile limit, it is not compelled, neither does it intend, to rest its case altogether upon the jurisdiction over Bering Sea established or exercised by Russia prior and up to the time of the cession of Alaska. It asserts that, quite independently of this jurisdiction, it has a right of protection and property in the fur-seals frequenting the Pribilof Islands when found outside the ordinary three-mile limit, and it bases this right upon the established principles of the common and the civil law, upon the practice of nations, upon the laws of natural history, and upon the common interests of mankind.

The United States do not rest their case altogether upon jurisdiction over Bering Sea.

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In order that this claim of right of protection and property may be clearly presented, it will be necessary to enter in some detail upon an examination of fur-seal life at the Pribilof Islands and elsewhere and of the various interests associated with it.

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# PART SECOND.

## RELATING TO THE HABITS, PRESERVATION, AND VALUE OF THE ALASKAN SEAL HERD, AND TO THE PROPERTY OF THE UNITED STATES THEREIN.



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# PART SECOND.

## RELATING TO THE HABITS, PRESERVATION, AND VALUE OF THE ALASKAN SEAL HERD, AND TO THE PROPERTY OF THE UNITED STATES THEREIN.

### HABITS OF THE ALASKAN SEAL.

#### THE PRIBILOF ISLANDS.

The Pribilof Islands are the home of the Alaskan fur-seal (*Callorhinus ursinus*). They are peculiarly adapted by reason of their isolation and climate for seal life, and because of this peculiar adaptability were undoubtedly chosen by the seals for their habitation.[1] The climatic conditions are especially favorable. The seal, while on land, needs a cool, moist, and cloudy climate, sunshine and warmth producing a very injurious effect upon the animals.[2] These requisite phenomena are found at the Pribilof Islands and nowhere else in Bering Sea or the North

NOTE.—Names found in citations refer to depositions of same found in the Appendix.

[1] Charles Bryant, Vol. II, p. 4; Samuel Falconer, Vol. II, p. 164; T. F. Morgan, Vol. II, p. 61; C. M. Scammon, Vol. II, p. 475; Daniel Webster, Vol. II, p. 180; J. C. Redpath, Vol. II, p. 148.

[2] Samuel Falconer, Vol. II, p. 164.



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Pacific, save at the Commander (Komandorski) Islands.[1]

Climate.

From May to November, inclusive (the period when the majority of the seals are on land), the mean temperature is between 41° and 42° F.;[2] during August, the warmest month, the mean is 47.2° F.;[3] during the warm months of June, July, and August the highest temperature reached was 62°, which occurred but once in eight years,[4] and the lowest was 28°, which was reached but once during the same period.[4] This constancy of temperature is further supplemented by the absence of sunshine and the almost continual presence of fogs, mists, or light rains.[5] During eight years the mean percentage of cloudiness on the islands for the months of June, July, and August was 92;[6] while during that period of eight years, consisting of seven hundred and thirty-six days, but eight clear days occurred and during the months of August not one.[4] The same peculiarity of climatic condition has also been observed at the

[1] Charles Bryant, Vol. II, p. 4.

[2] Samuel Falconer, Vol. II, p. 164; T. F. Morgan, Vol. II, p. 61; Weather Bureau Tables, Vol. I, p. 591.

[3] Weather Bureau Tables, Vol. I, p. 591.

[4] Weather Bureau Tables, Vol. I, p. 592.

[5] Charles Bryant, Vol. II, p. 4; Samuel Falconer, Vol. II, p. 164; T. F. Morgan, Vol. II, p. 61; J. Stanley Brown, Vol. II, p. 12.

[6] Weather Bureau Tables, Vol. I, p. 593.

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antarctic coasts and islands once frequented by vast herds of fur-seals.[1] Climate.

The Alaskan seals evidently consider the Pribilof Islands as their home, for while on or about them they are much less timid and fearful than when met with in the sea along the American coast.[2] Capt. C. N. Cox, master of the schooner *E. B. Marvin*, who was examined by Collector Milne, of the port of Victoria, British Columbia, in 1892, says: "They (the seals) seem to be right at home there (in the waters adjacent to the islands) and not traveling about so much"[3] Home of the fur-seal.

The two islands, St. Paul and St. George, are the only ones of the Pribilof group on which breeding seals land. The shores, comparatively limited, occupied by the animals are termed "rookeries" and are divided into "breeding grounds" and "hauling grounds."[4] St. Paul and St. George.

The "breeding grounds" or "breeding rookeries" (the areas occupied by the breeding seals and their offspring) are rocky areas along the water's edge, covered with broken pieces of lava of various sizes and shapes, those nearest the sea having been rounded by the action of the waves "Breeding grounds."

[1] James W. Budington, Vol. II, p. 594.
[2] Samuel Falconer, Vol. II, p. 165; Daniel Webster, Vol. II, p. 182.
[3] British Blue Book, U. S. No. 3 (1892); C—6635, p. 176.
[4] J. Stanley Brown, Vol. II, p. 12.

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"Breeding grounds."

and the ice; between the rocks are sometimes found smooth spaces of ground, but in no case are these areas of any extent, and they vary greatly in size. That these rough, uneven shores are chosen for the breeding grounds is probably because the bowlders act as a protection to the new-born seals from the surf and storms,[1] and also because the smoother rocks offer convenient resting places for the female seals in parturition.[2]

"Hauling grounds."

The "hauling grounds" (areas occupied by the nonbreeding seals) are the sandy beaches at one side of the breeding grounds, or the smoother spaces back of and contiguous to the breeding seals.[3] The areas covered by the rookeries on the respective islands vary considerably, being in the ratio of about seven or eight on St. Paul to one on St. George. St. Paul is much lower than St. George, the shores are broader, and more territory is available upon it for occupation by seals than on the latter, which accounts in a measure for the disproportion in seal population on the two islands.[4] The former island has ten rookeries (the largest being the Northeast Point Rookery), and the latter has five.[5]

[1] S. N. Buynitsky, Vol. II, p. 21.
[2] J. Stanley Brown, Vol. II, p. 15.
[3] J. Stanley Brown, Vol. II, p. 12; Samuel Falconer, Vol. II, p. 164.
[4] J. Stanley Brown, Vol. II, p. 11.
[5] J. Stanley Brown, Vol. II, p. 13.

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Census of seal life impossible.

From the nature of the ground covered by the breeding seals it is impossible to reach even an approximate estimate of the number of seals on these islands.[1] The roughness and unevenness of the breeding grounds preclude the possibility of calculating the number in a given area, so as to obtain a rule which can be applied to other rookeries or to other portions of the same rookery in estimating the seal population. The density of seal life varies according to the size and frequency of the rock masses and what might be a correct rule for one locality would be entirely incorrect for another. Besides this, the seals are constantly in motion, the females continually going to and coming from the water and new occupants of the breeding grounds are incessantly arriving.[2] Under these circumstances it is clearly evident that all estimates which attempt to fix the actual number of seals are so unreliable as to be worthy of no consideration for present or future calculations.[3]

Determination of increase or decrease of seals.

On the other hand, any considerable increase or decrease in the seals on the islands can at

[1] W. B. Taylor, Vol. II, p. 176; J. H. Moulton, Vol. II p. 71; B. F. Scribner, Vol. II, p. 89; H. A. Glidden, Vol. II, p. 110; H. H. McIntyre, Vol. II, p. 48; H. N. Clark, Vol. II, p. 159; Daniel Webster, Vol. II, p. 181.

[2] W. B. Taylor, Vol. II, p. 176; H. A. Glidden, Vol. II, p. 110; Daniel Webster, Vol. II, p. 181.

[3] W. B. Taylor, Vol. II, p. 176; J. H. Moulton, Vol. II, p. 71; B. F. Scribner, Vol. II, p. 89; H. A. Glidden, Vol. II, p. 110.

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Determination of increase or decrease of seals.

once be recognized by one familiar with the rookeries. The spaces occupied by the breeding seals can be correctly measured.[1] If there has been an increase in the number of seals, the areas formerly occupied will be filled and new ground covered, for the seals crowd together on the breeding grounds as closely as the nature of the ground will permit.[2] Therefore, an increase in the extent covered by breeding seals is an infallible indication of an increase in the seal herd.

## THE ALASKAN SEAL HERD.

Distinction between Alaskan and Russian herds.

The two great herds of fur seals which frequent the Bering Sea and North Pacific Ocean and make their homes on the Pribilof Islands and Commander (Komandorski) Islands, respectively, are entirely distinct from each other. The difference between the two herds is so marked that an expert in handling and sorting seal skins can invariably distinguish an Alaskan skin from a Commander skin.[3] Mr. Walter E. Martin, head of the London firm of C. W. Martin & Co., which has been for many years engaged in dressing and dyeing seal skins, describes the

[1] W. B. Taylor, Vol. II, p. 177; J. H. Moulton, Vol. II, p. 71; B. F. Scribner, Vol. II, p. 89.

[2] J. H. Moulton, Vol. II, p. 71; Daniel Webster, Vol. II, p. 181.

[3] W. E. Martin, Vol. II, p. 569; C. W. Price, Vol. II, p. 521; George Bantle, Vol. II, p. 508; George Rice, Vol. II, p. 573; Alfred Fraser, Vol. II, p. 557.

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Distinction between Alaskan and Russian herds.

difference as follows: "The Copper Island (one of the Commander Islands) skins show that the animal is narrower in the neck and at the tail than the Alaska seal, and the fur is shorter, particularly under the flippers, and the hair has a yellower tinge than the hairs of the Alaska seals."[1] In this statement he is borne out by Sneigeroff, a native chief on the Commander Islands and once resident on the Pribilof Islands.[2] C. W. Price, for twenty years a dresser and examiner of raw seal skins, describes the difference in the fur as being a little darker in the Commander skin.[3] The latter skin is not so porous as the Alaskan skin, and is more difficult to unhair.[4] The difference between the two classes of skins has been further recognized by those engaged in the sealskin industry in their different market value,[5] the Alaska skins always being held at from twenty to thirty per cent more than the "Coppers" or Commander skins.[6] This difference in value has also been recognized by the Russian Government.[7]

[1] W. E. Martin, Vol. II, p. 569.
[2] T. F. Morgan, Vol. II, p. 201.
[3] C. W. Price, Vol. II, p. 521; George Bantle, Vol. II, p. 508.
[4] John J. Phelan, Vol. II, p. 520.
[5] C. A. Williams, Vol. II, p. 537; W. E. Martin, Vol. II, p. 569; C. W. Price, Vol. II, p. 521; George Bantle, Vol. II, p. 508.
[6] C. A. Williams, Vol. II, p. 537; William C. B. Stamp, Vol. II, p. 575.
[7] C. A. Williams, Vol. II, p. 537.

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Does not mingle with Russian herd.

These two herds of fur-seals do not intermingle,[1] each keeping to its own side of Bering Sea and the Pacific Ocean, and each following its own course of migration.[2] Dr. J. A. Allen, the well known authority on Pinnipeds,* and Curator of the American Museum of Natural History, says: "The Commander Islands herd is evidently distinct and separate from the Pribilof Islands herd. To suppose that the two herds mingle, and that the same animals may at one time be a member of one herd and at another time of the other, is contrary to what is known of the habits of migrating animals in general."[3] Capt. Charles J. Hague, who since 1878 has made about twenty voyages along the Aleutian Islands from Unalaska to Attu, mostly in the spring and fall of the year, states that he does not remember ever having seen fur-seals in the water between Four Mountain Islands and Attu

[1] Report of American Bering Sea Commissioners, *post*, p. 323; J. Stanley Brown, Vol. II, p. 12; Charles Bryant, Vol. II, p. 4; C. A. Williams, Vol. II p. 537; Gustave Niebaum, Vol. II, p. 78; Arthur Newman, Vol. II, p. 210; C. H. Anderson, Vol. II, p. 205.

[2] H. H. McIntyre, Vol. II, p. 42; C. M. Scammon, Vol. II, p. 474; John P. Blair, Vol. II, p. 194.

[3] Article by Dr. Allen, Part III, Vol. I, p. 406; see also Report of American Bering Sea Commissioners, *post*, p. 323.

* Dr. Allen, at the request of the Department of State, has prepared a paper on Pinnipedia, Seal Hunting in the Antarctic Regions, the Alaska Seal Herd and Pelagic Sealing, which will be found in Vol. I, pp. 365–410, to which the attention of the Tribunal of Arbitration is especially directed.

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Island.[1] Between parallels 174° west and 175° east seals are seldom seen,[2] and only a few scattering ones are seen at long intervals in the neighborhood of Attu Island, which probably, from the course in which they are traveling, are members of the Commander herd.[3] Pud Zaotchnoi, one of the native chiefs of the Aleuts of Atka Island, says: "The fur-seal is only rarely seen about this region, scattering ones being seen occasionally during the months of September, October, and November, traveling from the northward to the southward through the passes between Atka and Amlia islands. Those seen are always gray pups, and usually appear after a blow from the northeast. The most I ever saw in any one year was about a dozen . . . I have never seen large bulls or full grown fur-seals in this region.[4] These gray pups are the young born that season, which having left the islands in the autumn are driven out of their course by the storms, being unable to battle against the waves as the older seals do. A further evidence that seals do not frequent the waters between the parallels of longitude men-

Does not mingle with Russian herd.

[1] Charles J. Hague, Vol. II. p. 207.
[2] Arthur Newman, Vol. II, p. 210; C. H. Anderson, Vol. II, p. 205.
[3] Eliah Prokopief, Vol. II, p. 215; Filaret Prokopief, Vol. II, p. 216; Samuel Kahoorof, Vol. II, p. 214.
[4] Vol. II, p. 213; Kassian Gorloi, Vol. II, p. 212.



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Does not mingle with Russian herd.

tioned is the fact that sealing vessels are seldom seen in those regions, and never remain any length of time.[1]

Classification.

In considering the habits of the Alaskan seal the herd will be divided into four classes, based upon age and sex.

First. The pups, or pup seals, being the seals of both sexes under one year of age.

Second. The bulls, or "sekatchie," being the male seals from six or seven years old upwards, which are able to maintain themselves on the breeding grounds.

Third. The cows, or "matkie," being the female seals over one year old.

Fourth. The bachelors, or "holluschuckie," being the nonbreeding male seals, their age ranging from one to five or six years.

All references hereafter made to seals, unless specifically stated to the contrary, pertain to the Alaskan fur-seal, and all mention of rookeries refers exclusively to those located on St. Paul and St. George islands of the Pribilof group.

## THE PUPS.

Birth.

The pup is born on the breeding grounds during the months of June or July.[2] Its birth

[1] Eliah Prokopief, Vol. II, p. 215; Kassian Gorloi, Vol. II, p. 212.

[2] T. F. Morgan, Vol. II, p. 61; Samuel Falconer, Vol. II, p. 164.

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usually occurs within a day or two after the mother seal arrives on the islands,[1] and often within a few hours.[2] A young seal at birth weighs from six to eight pounds, its head being abnormally large for the size of its body;[3] it is almost black in color, being covered with a short hair, which changes to a silver-gray color after the pup learns to swim.[4] These two grades of pups are distinguished by the names "black pups" and "gray pups." This coat of hair is its only covering, the under coat of fur not being found on the new-born seal.[5] Birth.

For the first six or eight weeks of its life the pup is confined entirely to the breeding grounds, being unable to swim.[6] Mr. Thomas F. Morgan, for nearly twenty years located on the Pribilof Islands as one of the agents of the lessees, states that he has often seen young pups washed off by the surf and drowned.[7] Dr. W. L. Hereford, for many years resident physician on the Pribilof Islands, relates that a pup being found which Inability to swim.

[1] Charles Bryant, Vol. II, p. 4.

[2] Charles Bryant, Vol. II, p. 4; J. Stanley Brown, Vol. II, p. 13. Anton Melovedoff, Vol. II, p. 144; J. C. Redpath, Vol. II, p. 148.

[3] Daniel Webster, Vol. II, p. 180.

[4] Samuel Falconer, Vol. II, p. 164.

[5] J. H. Moulton, Vol. II, p. 72.

[6] Anton Melovedoff, Vol. II, p. 144; Aggie Kushin, Vol. II, p. 129; Karp Buterin, Vol. II, p. 104; John Fratis, Vol. II, p. 108; Article by Dr. Allen, Part III, Vol. I, p. 407; Daniel Webster, Vol. II, p. 180.

[7] Vol. II, p. 61.

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Inability to swim.

had lost its mother, was placed near the water's edge in order that it might swim to an adjoining rookery and perchance find its parent. "Day after day" he continues, "this pup was watched, but it would not go near the water, and neither did its mother return. After several days or so, a new employé of that season only, and knowing nothing whatever of fur-seal life and habits, coming along that way and finding the pup in the grass, thinking probably that he had gotten lost from the other side, took him up and threw him into the water, with a view of giving him a chance of swimming back home. It was mistaken kindness, however, for he was immediately drowned."[1] Dr. H. H. McIntyre, for twenty years on the islands as superintendent of the Alaska Commercial Company, and who has made the seal habits and industry a life study, states "that it should be particularly noted that they (the pups) are not amphibious until several weeks old."[2] Mr. J. H. Moulton, who was assistant Treasury agent on the islands for seven years, states that he "has seen pups thrown in the water when their heads would immediately go under, and they would inevitably drown

[1] Vol. II, p. 34.
[2] Vol. II, p. 41.

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if not rescued."[1] The fact that they are unable to swim is further evidenced by their manifest dread of the water. Mr. J. Stanley Brown, a scientist detailed by the United States Government to investigate seal life on the Pribilof Islands, says: "The pups are afraid of the water; they have to learn to swim by repeated effort, and even when able to maintain themselves in the quiet waters will rush in frantic and ludicrous haste away from an approaching wave."[2] Capt. Bryant, Treasury agent in charge of the Pribilof Islands from 1869 to 1877, and who previous to that had been a whaling captain in Bering Sea, says: "They run back terrified whenever a wave comes in."[3] He is supported in this statement by Mr. Samuel Falconer,[4] Gen. Scribner,[5] and Mr. Wardman, who have been Treasury agents on the Pribilof Islands, the latter adding that "young pups can not be driven into the water by man, and when I tried to drive them in before they had learned to swim, they would immediately run back from the water.[6]

Inability to swim.

[1] Vol. II, p. 72.
[2] Vol. II, p. 16.
[3] Vol. II, p. 5.
[4] Vol. II, p. 164.
[5] Vol. II, p. 89.
[6] Vol. II, p. 178.

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Aquatic birth impossible.

In view of the foregoing circumstances, it is clear that it is an impossibility for a pup seal to be born in the water and live; this is confirmed by the statements of all those who have studied into or had experience with seal life;[1] and is well known to be a peculiarity of all Pinnipedia.[2] Prof. W. H. Dall, a recognized authority on all Alaskan matters, states that a pup born under such circumstances would unquestionably perish, and further adds that "when it is the habit of an animal to give birth to its young upon the land, it is contrary to biological teaching and common sense to suppose that they could successfully bring them forth in the water."[3] Mr. Stanley Brown, in considering this question, says: "Were not the seals in their organs of reproduction, as well as in all the incidents of procreation, essentially land animals, the fact that the placenta remains attached to the pup by the umbilical cord for twenty-four hours or even more after birth, would show the impossibility of aquatic birth. I have seen pups dragging the caul over the ground on the third day after birth. Even could the pup stand

[1] T. F. Morgan, Vol. II, p. 62; Charles Bryant, Vol. II, p. 5; Kerrick Artomanoff, Vol. II, p. 100.

[2] Appendix C, Report of American Bering Sea Commissioners, *post*, p. 327.

[3] Vol. II, p. 23.

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the buffeting of the waves it could not survive such an anchor. No pup could be born in the water and live."[1] To these unqualified statements of experts and scientists are added those of a large number of Indians and seal hunters along the American coast, and an instance which took place during the Russian occupation puts the impossibility of pelagic birth beyond question. The following is an extract from a letter dated June 20, 1859, by the manager of St. Paul Island addressed to the chief manager, and inclosed in a letter dated May 13, 1860, from Capt. Ivan Vassilievitch Furuhelm to the board of administration of the Russian American Company:

Aquatic birth impossible.

"The female seals came this year in May at the usual time after the 'sekatches' had landed. Only a few had come ashore when, with a strong northwest wind, the ice came from the north. It closed around the islands and was kept there by the wind for thirteen days. The ice was much broken and was kept in motion by the sea.

"It is an actual fact, most gracious sir, that the females could not reach the shore through the ice. Some of the Aleuts went out as far as it was safe to go on the larger pieces of ice and they saw the water full of seals. When the northwest

[1] Vol. II, p. 15; Article by Dr. Allen, Part III, Vol. I, p. 406.

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gale ceased the ice remained for nearly a week longer, being ground up in the heavy swell and no females could land. A few 'sekatches' tried to go out to sea but did not succeed. On the 10th of June the first females began to land, but they came slowly, and it was very late when the rookeries began to fill. Very few of the females, no more than one out of twenty or twenty-five, had their young after they came ashore. Nearly all must have lost them in the water, as for many weeks since the ice went away the bodies of young seals have been washed up by the sea in thousands. This misfortune I must humbly report to you. It was not the work of man but of God."[1]

Birth on kelp beds impossible.

These statements also apply to birth on beds of kelp, or seaweed, for a new-born pup would undoubtedly be washed from such a resting place and perish. Andrew Laing, a seal hunter of long experience, who was examined by Mr. A. R. Milne, collector of the port of Victoria, British Columbia, states on such examination: "I have heard a great deal of talk of females having young on the kelp, too, but I don't think that it is so. Some hunters report of seeing pups off Middletons Island, but I think that it is impossible."

[1] Vol. I, p. 86.

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He further stated that he did not think they could live continually in the water if born in it.[1]

Birth on kelp beds impossible.

When the pups are from four to six weeks old they gather together on the breeding grounds into groups called "pods."[2] This act is called "podding." The "pods" by degrees work their way down to the water's edge and the pups begin to make use of their flippers.[3] Prior to this time the flippers have been used entirely for locomotion on land.

Podding.

The pup's manner of locomotion has been variously described as being similar to that of the pup of a Newfoundland dog[4] or of a young kitten.[5] The difference between the modes of locomotion of the pup and of the older seals is well stated by Mr. J. H. Moulton. He says "that it (the pup) uses its hind flippers as feet, running on them in much the same manner as other land animals, while a seal that has learned to swim drags his hind flippers, using his front flippers to pull himself along."[6]

Locomotion on land.

[1] British Blue Book, U. S. No. 3 (1892), C-6635, p. 184.

[2] Report of American Bering Sea Commissioners, *post*, p. 327; J. Stanley Brown, Vol. II, p. 16; H. H. McIntyre, Vol. II, p. 41; Charles Bryant, Vol. II, p. 5; H. W. McIntyre, Vol. II, p. 136; J. C. Redpath, Vol. II, p. 148.

[3] J. Stanley Brown, Vol. II, p. 16; H. H. McIntyre, Vol. II, p. 41; Charles Bryant, Vol. II, p. 5.

[4] J. Stanley Brown, Vol. II, p. 15.

[5] Samuel Falconer, Vol. II, p. 164.

[6] Vol. II, p. 72.



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Learning to swim.

There are two methods by which a pup learns to swim. One is by a "pod" of pups getting near the edge of the water and finally, after repeated efforts, acquiring the use of their flippers.[1] Andrew Laing, already mentioned as one of the seal hunters lately examined by Collector Milne, of the port of Victoria, British Columbia, says: "They (the pups) will never take to the water freely themselves for from six weeks to two months."[2] The other method is by the mother seal taking the pup in her mouth and carrying it into the water, where, after several trials, it becomes able to sustain itself.[3]

Departure from islands.

After learning to swim the pup spends its time on land and in the water, but the greater portion is passed on land,[4] until its final departure, which takes place generally about the middle of November,[5] but the time depends a great deal upon the weather.[6]

Dependence upon its mother.

During the entire time the pups remain upon the islands they are dependent solely upon their

[1] H. H. McIntyre, Vol. II, p. 41; J. Stanley Brown, Vol. II, p. 16; T. F. Morgan, Vol. II, p. 62.

[2] British Blue Book, U. S. No. 3 (1892), C-6635, p. 184.

[3] Samuel Falconer, Vol. II, pp. 164–165; Charles Bryant, Vol. II, p. 5.

[4] Charles Bryant, Vol. II, p. 5; H. H. McIntyre, Vol. II, p. 41; T. F. Morgan, Vol. II, p. 62; Anton Melovedoff, Vol. II, p. 144; Daniel Webster, Vol. II, p. 180.

[5] H. H. McIntyre, Vol. II, p. 41; Charles Bryant, Vol. II, p. 5; Aggie Kushin, Vol. II, p. 130; C. L. Fowler, Vol. II, p. 25.

[6] H. H. McIntyre, Vol. II, p. 41; Charles Bryant, Vol. II, p. 5; Anton Melovedoff, Vol. II, pp. 144–145; John Fratis, Vol. II, p. 108.

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mothers for sustenance.[1] Prof. Dall says that the "pups require the nourishment of their mothers for at least three to four months after birth, and would perish if deprived of the same."[2] Others fix the period of weaning at at least four months.[3] Others say that the female seal suckles her young as long as it remains on the islands.[4] All agree that without this nourishment the pup would starve to death, and Dr. Hereford gives an account of endeavoring to raise a motherless pup by hand, which resulted in its death.[5]

Dependence upon its mother.

In spite of the fact of its complete dependence upon its mother, a pup can exist several days without food,[6] and demonstrates the wonderful vitality of the species.

Vitality.

## THE BULLS.

The bulls are the male seals from five or six to twenty years of age,[7] and weigh from four to seven hundred pounds.[8]

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[1] J. C. Redpath, Vol. II, p. 148.
[2] Vol. II, p. 23.
[3] J. Stanley Brown, Vol. II, p. 16; J. H. Moulton, Vol. II, p. 72.
[4] Samuel Falconer, Vol. II, p. 165; Charles Bryant, Vol. II, p. 5.
[5] Vol. II, p. 33.
[6] W. S. Hereford, Vol. II, p. 33; Nicoli Krukoff, Vol. II, p. 133; Kerrick Artomanoff, Vol. II, p. 100.
[7] H. H. McIntyre, Vol. II, p. 43; Charles Bryant, Vol. II, p. 6.
[8] Report of American Bering Sea Commissioners, *post*, p. 325; Samuel Falconer, Vol. II, p. 166; H. H. McIntyre, Vol. II, p. 58.

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Arrival at islands.

They arrive on the breeding grounds in the latter part of April or first few days of May,[1] but the time is to a certain extent dependent on the going out of the ice about the islands.[2] The bull, if it is not his first experience upon the breeding grounds, endeavors to land upon the same rookery which he occupied in former years,[2] and in many cases the same bull has been observed to occupy the same position (generally a large rock[3]) on the same rookery for several successive years.[4] A position, however, is not obtained without many sanguinary battles between the rival bulls for the more coveted places near the water.[5]

Arrival of the cows.

Toward the latter part of May or first of June the cows begin to appear in the waters adjacent to the islands and immediately land upon the breeding grounds.[6] The great majority, however,

[1] Appendix B, Report of American Bering Sea Commissioners, *post*, p. 385; J. Stanley Brown, Vol. II, p. 13; Nicoli Krukoff, Vol. II, p. 133; John Fratis, Vol. II, p. 108; J. C. Redpath, Vol. II, p. 148; C. L. Fowler, Vol. II, p. 25.

[2] Daniel Webster, Vol. II, p. 180.

[3] Report of American Bering Sea Commissioners, *post*, p. 325.

[4] J. C. Redpath, Vol. II, p. 148.

[5] Report of American Bering Sea Commissioners, *post*, p. 325; H. H. McIntyre, Vol. II, p. 43.

[6] Anton Melovedoff, Vol. II, p. 144; Aggie Kushin, Vol. II, p. 129; Nicoli Krukoff, Vol. II, p. 133; John Fratis, Vol. II, p. 108; C. L. Fowler, Vol. II, p. 25.

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do not haul up until the latter part of June;[1] and the arrivals continue until the middle of July.[2] Arrival of the cows.

Each bull, being polygamous, gathers about him as many cows as he can.[3] The number of cows to a "harem" (as the bull and his cows are called) varies according to the strength and position of the bull and the respective number of the sexes in the herd. The average is fixed at from fifteen to twenty-five.[4] Assistant Treasury Agent W. B. Taylor, who was on St. George Island in the year 1881, reports that he has seen forty cows in one harem and that the bull was constantly trying to obtain more.[5] Organization of the harems.

This is but one instance of the great powers of fertilization possessed by the male seal. Mr. Taylor further states that he believes a bull can serve over a hundred cows during a season;[5] Capt. Bryant says from seventy-five to one hundred;[6] and Gen. Scribner affirms it as his opinion that a bull could fertilize a hundred or more cows;[7] and he is supported in this by Capt. Daniel Webster, who, as agent of the lessees, has Powers of fertilization.

[1] J. Stanley Brown, Vol. II, p. 13.
[2] Anton Melovedoff, Vol. II, p. 144.
[3] J. Stanley Brown, Vol. II, p. 14; T. F. Morgan, Vol. II, p. 63.
[4] J. Stanley Brown, Vol. II, p. 14; Charles Bryant, Vol. II, p. 6.
[5] Vol. II, p. 177.
[6] Vol. II, p. 6.
[7] Vol. II, p. 89.

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Powers of fertilization.

resided on the islands for over twenty-two years, and who prior to that time had been actively engaged in the sealing industry.[1] Dr. Allen thinks a bull is able to serve from forty to sixty cows.[2] Mr. Samuel Falconer states that a bull is capable of fertilizing at first six to eight cows a day.[3]

Coition.

The act of coition takes place upon land, which, by reason of the formation of the genital organs, is similar to that of other mammals.[4] It is violent in character, and consumes from five to eight minutes.[5] Copulation in the water is affirmed by Mr. Stanley Brown, Dr. McIntyre, and others to be impossible.[6] The former bases his opinion on careful observation and on the fact that the cow being so much smaller than the male (a cow weighs from seventy-five to one hundred and twenty pounds) she would be entirely submerged and would be compelled to remain beneath the surface longer than would be possible. Dr. McIntyre makes the assertion on twenty years of careful study of seal life

[1] Vol. II, p. 183.

[2] Article by Dr. Allen, Part III, Vol. I, p. 407.

[3] Vol. II, p. 166.

[4] Report of American Bering Sea Commissioners, *post*, p. 327; J. Stanley Brown, Vol. II, p. 14.

[5] Report of American Bering Sea Commissioners, *post*, p. 325; J. Stanley Brown, Vol. II, p. 14.

[6] Vol. II, p. 14; Vol. II, p. 42; J. M. Morton, Vol. II, p. 67.

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under the most favorable circumstances. Undoubtedly the sea otter, whose habit of pelagic coition is well known, has often been mistaken for the fur-seal, which has resulted in many believing that the latter copulate in the water.[1] Mr. Falconer, although he does not affirm that the act of reproduction is impossible in the water, states that he does not believe it could be effectual, and that it would be most unnatural.[2] Dr. Allen, in considering this question, after giving an account of the jealous guardianship of the bull over his harem, says: "If parturition and copulation could occur in the sea, the exercise of any such tyrannical jurisdiction of the males over the females would be impossible, and the seraglio system, so well established, not only in the case of this species, but in all its allies, would not be the one striking feature in the sexual economy of the whole eared-seal family, wherever its representatives are found."[3] Coition.

During the entire rutting season, which lasts for at least three months, the bulls remain constantly upon the breeding grounds, never leaving their positions, and never eating or drinking, and sleeping very little.[4] Fasting.

[1] Article by Dr. Allen, Part III, Vol. I, p. 407; J. Stanley Brown, Vol. II, p. 15.
[2] Vol. II, p. 165.
[3] Article by Dr. Allen, Part III, Vol. I, p. 407.
[4] T. F. Morgan, Vol. II, p. 63; Charles Bryant, Vol. II, p. 6.

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Disorganization of the rookeries.

After all the cows have been fertilized and the pups begin to form into "pods," the order formerly existing on the breeding grounds gives place to disorder. The bulls no longer restrain the cows in their movements, and the rookeries become disorganized.[1]

Departure from islands.

Some of the bulls at this time (about the 1st of August) begin to leave the islands, and continue going till the early part of October.[2] They are very lean and lank after their long fast, but the following May return to the rookeries as thickly enveloped in blubber and as vigorous as the former season.[3]

Vitality.

The bull seal must necessarily possess almost unsurpassed powers of vitality and virility to remain for such a period without nourishment of any sort, and still be able to fertilize so many females.

## THE COWS.

The cows or breeding female seals are much smaller than the bulls, the average weight being

[1] J. Stanley Brown, Vol. II, p. 16; T. F. Morgan, Vol. II, p. 63; Aggie Kushin, Vol. II, p. 130; John Fratis, Vol. II, p. 108.

[2] H. H. McIntyre, Vol. II, p. 42; Samuel Falconer, Vol. II, p 166; Anton Melovedoff, Vol. II, p. 144; Aggie Kushin, Vol. II, p. 129.

[3] T. F. Morgan, Vol. II, p. 63; H. H. McIntyre, Vol. II, p. 43; J. C. Redpath, Vol. II, p. 148.

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less than one hundred pounds; the age of puberty is probably two years.[1]

Age.

The exact age which is reached by a cow is necessarily a matter of conjecture, but microscopic examinations under the direction of Capt. Bryant showed that some of the older females had borne at least eleven to thirteen pups.[2] It is therefore safe to say that a cow lives to be at least fifteen years old.

Harem life.

After a cow lands on the rookeries and is delivered of her pup she is jealously guarded by the bull to whose harem she belongs, until again fertilized,[3] which probably takes place within two weeks.[4] The exact period of gestation is not definitely known, but is believed to be about fifty weeks.[5]

Number of pups at a birth.

A cow produces but one pup at a birth,[6] and Mr. Falconer adds that "two at a birth is as rare an occurrence as a cow to bring forth two calves, and that during his entire experience of seven years he never heard of this happening

[1] H. H. McIntyre, Vol. II, p. 42; Samuel Falconer, Vol. II, p. 165.
[2] Vol. II, p. 6.
[3] J. Stanley Brown, Vol. II, p. 15.
[4] Samuel Falconer, Vol. II, p. 165.
[5] Report of American Bering Sea Commissioners, *post*, p. 326.
[6] W. H. Dall, Vol. II, p. 24; T. F. Morgan, Vol. II, p. 63; H. W. McIntyre, Vol. II, p. 136; Kerrick Artomanoff, Vol. II, p. 100.



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Number of pups at a birth.

but once.[1] The young at birth are about equally divided as to sex.[2]

A cow as soon as a pup is brought forth begins to give it nourishment,[3] the act of nursing taking place on land and never in water,[4] and she will only suckle her own offspring.[2] This fact is verified by all those who have studied seal life or had experience upon the islands.[5] Mr. Morgan says: "The pup does not appear to recognize its mother, attempting to draw milk from any cow it comes in contact with; but a mother will at once recognize her own pup and will allow no other to nurse her. This I know from often observing a cow fight off other pups who approached her, and search out her own pup from among them, which I think she recognizes by its smell and cry."[6] Mr. Falconer says: "A mother will at once recognize her pup by its cry, hobbling over a thousand bleating pups to reach her own, and every other approaching her save this little animal she will

Nourishes only her own pup.

[1] Vol. II, p. 165.

[2] Report of American Bering Sea Commissioners, *post*, p. 326.

[3] J. Stanley Brown, Vol. II, p. 15.

[4] Report of American Bering Sea Commissioners, *post*, p. 326. See also Appendix C of same, *post*, p. 387.

[5] W. H. Dall, Vol. II, p. 23; H. H. McIntyre, Vol. II, p. 41; Karp Buterin, Vol. II, p. 104.

[6] Vol. II, p. 62.

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drive away."[1] These facts are verified by many others experienced in the habits of seals.[2] Nourishes only her own pup.

This habit of a cow is another evidence of the absolute dependence of a pup seal upon its mother. Capt. Bryant says in this connection: "I am positive that if a mother seal was killed her pup must inevitably perish by starvation. As evidence of this fact I will state that I have taken stray, motherless pups, found on the sand beaches, and placed them upon the breeding rookeries beside milking females, and in all instances those pups have finally died of starvation."[3] Capt. Bryant's statement as to the certainty of death to the pup if its mother was destroyed is sustained by many experienced witnesses.[4] Death of cow causes death of pup.

Necessarily after a few days of nursing her pup the cow is compelled to seek food in order to provide sufficient nourishment for her offspring.[5] Soon after coition she leaves the pup on the rookery and goes into the sea,[6] and as the Feeding.

[1] Vol. II, p. 164.

[2] J. H. Moulton, Vol. II, p. 71; W. S. Hereford, Vol. II, p. 33; Nicoli Krukoff, Vol. II, p. 133; John Fratis, Vol. II, p. 108; Daniel Webster, Vol. II, p. 180; J. C. Redpath, Vol. II, p. 148.

[3] Vol. II, p. 5.

[4] W. H. Dall, Vol. II, p. 23; George Wardman, Vol. II, p. 178.

[5] J. Stanley Brown, Vol. II, p. 15; Daniel Webster, Vol. II, p. 180.

[6] Report of American Bering Sea Commissioners, *post*, p. 329; H. H. McIntyre, Vol. II, p. 42; Samuel Falconer, Vol. II, p. 166; Article by Dr. Allen, Part III, Vol. I, p. 407; H. W. McIntyre, Vol. II, p. 136.

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Feeding.

pup gets older and stronger these excursions lengthen accordingly until she is sometimes absent from the rookeries for a week at a time.[1]

Food.

The food of all classes of fur seals consists of squids, fishes, crustaceans, and mollusks,[2] but squids seem to be their principal diet, showing the seals are surface feeders.[3] On account of the number of seals on the islands fish are very scarce in the neighboring waters;[4] this necessitates the cow going many miles in search of her food.

Feeding excursions.

They undoubtedly go often from one hundred to two hundred miles from the rookeries on these feeding excursions.[5] This fact is borne out by the testimony of many experienced sealers, who have taken nursing females a hundred miles and over from the islands,[6] and Capt. Olsen, of the steam schooner *Anna Beck*, states, through the Victoria Daily Colonist, of August 6, 1887

[1] Nicoli Krukoff, Vol. II, p. 133; John Fratis, Vol. II, p. 108; Kerrick Artomanoff, Vol. II, p. 100.

[2] Report of American Bering Sea Commissioners, Appendix E, *post*, p. 393; W. H. Dall, Vol. II, p. 23; T. F. Morgan, Vol. II, p. 62.

[3] Report of American Bering Sea Commissioners, Appendix E, *post*, p. 396.

[4] S. N. Buynitsky, Vol. II, p. 21.

[5] Report of American Bering Sea Commissioners, *post*, p. 329.

[6] Michael White, Vol. II, p. 490; Alfred Irving, Vol. II, p. 386; James Sloan, Vol. II, p. 477; Martin Hannon, Vol. II, p. 445; Chad George, Vol. II, p. 366; Wilton C. Bennett, Vol. II, p. 357; Victor Jackobson, Vol. II, p. 328.

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(which is published in the British Blue Book, 1890, C–6131, p. 84), that "anyone who knows anything of sealing is aware that such a charge [catching seals in Alaskan waters within three leagues of the shore] is ridiculous, as we never look for seals within twenty miles of shore. They are caught all the way from between twenty and one hundred and fifty miles off the land." Capt. Dyer, of the seized sealing schooner *Alfred Adams*, confirmed the above statement by saying: "We had never taken a seal within sixty miles of Unalaska, nor nearer St. Paul than sixty miles south of it."[1] Among the depositions taken before Mr. A. R. Milne, collector of customs of the port of Victoria, British Columbia, several of the deponents give testimony as to the usual sealing distance from the Pribilof Islands while in Bering Sea. Capt. William Petit, present master and part owner of the steamer *Mischief*, gives such distance as from sixty to one hundred miles, and states that seals are found all along that distance from land in large numbers.[2] Capt. Wentworth Evelyn Baker, master of the Canadian schooner *C. H. Tupper*, and formerly master of the schooner *Viva*, says that the distance from land was from thirty to

Feeding excursions.

[1] British Blue Book, U. S. No. 2, 1890, C–6131, p. 108.
[2] British Blue Book U. S. No. 3 (1892), C–6635, p. 171.

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Feeding excursions.

one hundred miles, usually sixty miles.[1] And Capt. William Cox, master of the schooner *Sapphire*, places the principal hunting ground at one hundred miles from the islands of St. George and St. Paul.[2] Capt. L. G. Shepard, of the United States Revenue Marine, who seized several vessels while sealing in Bering Sea in 1887 and 1889, states: "I have seen the milk come from the carcasses of dead females lying on the decks of sealing vessels which were more than a hundred miles from the Pribilof Islands." He further adds that he has seen seals in the water over one hundred and fifty miles from the islands during the summer.[3] The course of sealing vessels and their daily catch show also that the majority of the seals taken in Bering Sea are secured at over one hundred miles from the Pribilof Islands.[4]

The distance that the seals wander from the islands during the summer in their search for food is clearly shown by the "Seal Chart" compiled from the observations of the American cruisers during their cruises in Bering Sea in July, August, and September, 1891.[5]

[1] British Blue Book, U. S. No. 3 (1892), C-6635, p. 173.
[2] *Ibid.* p. 191.
[3] L. G. Shepard, Vol. II, p. 189.
[4] Logs of sealing vessels seized, Vol. I, p. 525.
[5] "Seal Chart" in portfolio of maps and charts.

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Speed in swimming.

The great distance of the feeding grounds from the islands is not remarkable, as the seals are very rapid swimmers and possess great endurance.[1] Thomas Mowat, esq., inspector of fisheries for British Columbia, in the annual report of the Department of Fisheries of the Dominion of Canada (1886), at page 267, makes the following statement, which corroborates the foregoing: "Capt. Donald McLean, one of our most successful sealing captains, and one of the first to enter into the business of tracking seals from California to Bering Sea, informs me he has known bands of seals to travel one hundred to two hundred miles a day, feeding and sleeping during a portion of this time." Capt. Bryant, with long experience as master mariner of a whaling vessel, states that he is convinced that a seal can swim more rapidly than any species of fish, and that a female could leave the islands, go to the fishing grounds a hundred miles distant and easily return the same day.[2] But in case these excursions consumed a longer time, the peculiar physical economy of the pup seal makes it possible for it to exist several days without nourishment.[3]

Departure from islands.

The length of time that a pup is dependent upon its mother, as heretofore stated, compels

[1] Charles Bryant, Vol. II, p. 6; W. S. Hereford, Vol. II, p. 35.
[2] Vol. II, p. 6.
[3] W. S. Hereford, Vol. II, p. 33; H. H. McIntyre, Vol. II, p. 41.

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Departure from islands.

her to remain upon the islands until about the middle of November, when the cold and stormy weather induces her to depart, her pup being then able to support itself.

## THE BACHELORS.

Arrival at the islands.

The bachelor seals, or nonbreeding males, ranging in age from one to five or six years, begin to arrive in the vicinity of the islands soon after the bulls have taken up their positions upon the rookeries,[1] but the greater number appear toward the latter part of May.[2] They endeavor to land upon the breeding grounds, but are driven off by the bulls[3] and compelled to seek the hauling grounds.[4]

The killable class.

From this class of seals are chosen the ones which are killed on the islands for their pelts, the bachelor from two to five years being selected.[5] The life on the hauling grounds is passed in sleeping, wandering about and making occasional trips to the water.[6] The older bachelors spend a good deal of time in the water, their instincts leading them to remain near the breed-

[1] J. Stanley Brown, Vol. II, p. 13; H. H. McIntyre, Vol. II, p. 43; Anton Melovedoff, Vol. II, p. 144; J. C. Redpath, Vol. II, p. 149.
[2] S. N. Buynitsky, Vol. II, p. 21.
[3] Louis Kimmel, Vol. II, p. 173; Aggie Kushin, Vol. II, p. 129.
[4] J. C. Redpath, Vol. II, p. 149; Kerrick Artomanoff, Vol. II, p. 100.
[5] S. N. Buynitsky, Vol. II, p. 21; Samuel Falconer, Vol. II, p. 166.
[6] H. H. McIntyre, Vol. II, p. 42.

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ing grounds.[1] Mr. Falconer says that they always pursue a female when she is allowed to leave the harem and go into the water, but she always refuses them.[2] This is natural considering the fact that the cow is fertilized before being allowed to enter the water.[3]

The killable class.

Both Capt Bryant and Mr. Morgan say that in their opinion the bachelor seals feed very little while located on the islands,[4] and Mr. Glidden states that "the bachelors once in a while go into the water, but remain in the vicinity of the islands."[5] Anton Melovedoff, the native chief on St. Paul Island for seven years (1884–1891) states that he has "found that the seals killed in May and early June were fat and that their stomachs were full of food, principally codfish, and that later in the season they were poor and had nothing in their stomachs," and that, in his opinion, "none but the mother seals go out in the sea to eat during the time the herds are on the islands."[6] And his opinion in this matter corresponds with the views of natives

Feeding.

[1] H. H. McIntyre, Vol. II, p. 43.
[2] Vol. II, p. 165.
[3] *Ante*, p. 115.
[4] Vol. II, p. 6; Vol. II, p. 63.
[5] Vol. II, p. 100.
[6] Vol. II, p. 144.



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Feeding.

and whites who have been long resident on the Pribilof Islands.[1]

Mingling with the cows.

When the rookeries become disorganized, the bachelors, no longer fearing the bulls, which possess great ferocity during the rutting season, even attacking man,[2] move down onto the breeding grounds, and pups, cows, and bachelors mingle together indiscriminately.[3]

Departure from islands.

Here the bachelors remain until the time of their departure, which generally takes place at the same time the cows[4] and pups leave the islands, though a few bachelors always are found after that period.[5]

## MIGRATION OF THE HERD.

The Alaskan seal herd is migratory from necessity, for when the weather has been particularly mild during certain winters seals have been found on land and in the vicinity of the islands the year round.[6] An examination of the table showing the annual killing of seals on St. Paul Island for several years proves conclusively

[1] Karp Buterin, Vol. II, p. 103; Nicoli Krukoff, Vol. II, p. 133; John Fratis, Vol. II, p. 108; Daniel Webster, Vol. II, p. 180; J. C. Redpath, Vol. II, p. 149; Kerrick Artomanoff, Vol. II, p. 100.

[2] J. Stanley Brown, Vol. II, p. 14.

[3] J. Stanley Brown, Vol. II, p. 16.

[4] H. H. McIntyre, Vol. II, p. 41.

[5] Tables of killing on St. Paul Island, Vol. II, p. 114.

[6] H. H. McIntyre, Vol. II, p. 41; Charles Bryant, Vol. II, p. 5.

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the presence of seals on the islands for at least eight months of the year, and that they have in fact been killed there in every month of the year.[1]

Causes.

The primal cause of migration is undoubtedly the severity of the winter weather,[2] and to that may be added a lack of food supply.[3] The seals evidently consider these islands their sole home, and only leave them from being forced so to do.[4] If the climate permitted they would without doubt remain on or in the vicinity of the Pribilof Islands during the entire year.[5] That this is true is evidenced by the fact of their so remaining during unusually warm winters, as above stated, and from the further fact that the seals of the Galapagos Islands, which much resemble in their habits the Alaskan herd, do not migrate, not being compelled so to do by the weather.[6] Capt. Budington, who has had twenty years' experience as a sealer in the southern hemisphere, states that "the Terra del Fuego and Patagonian seals never leave the rookeries or the waters in the vicinity, only going out into the inland waters in search

[1] Table of killing on St. Paul Island, Vol. II, p. 114.

[2] W. H. Dall, Vol. II, p. 23, 24; Charles Bryant, Vol. II, p. 5; Daniel Webster, Vol. II, p. 180.

[3] Same authorities.

[4] Charles Bryant, Vol. II, p. 5; Samuel Falconer, Vol. II, p. 165; Kerrick Artomanoff, Vol. II, p. 100.

[5] Charles Bryant, Vol. II, p. 5; T. F. Morgan, Vol. II, p. 62; Article by Dr. Allen, Part III, Vol. I, p. 405.

[6] C. W. Reed, Vol. II, p. 472; see also Isaac Liebes, Vol. II, p. 515.

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Causes.

of food. About Terra del Fuego no ice forms, and no snow falls that remains. The temperature remains about the same summer and winter."[1]

The course.

The fact exists, however, that the Alaskan seal herd is compelled to migrate. The course pursued, which is confined to the eastern side of the Bering Sea and Pacific Ocean, is to a certain extent conjectural, but sufficient data have been collected to state it with approximate accuracy. On leaving the islands in November or December the seals turn southward, pass through the channels of the Aleutian chain, and enter the Pacific Ocean.[2] The bulls after entering the ocean remain in the waters south of the Aleutian Islands and the Alaskan Peninsula, and in the early spring may be found near the Fairweather Ground. They are seldom seen below Baranoff Island.[3] Turning eastward after entering the ocean[4] the remainder of the herd, cows, bachelors and pups, begin to appear off the coast of California the latter part of December or first of January.[5] The seals now turn northward,[6] following up the coast, twenty, thirty or more miles

[1] J. W. Budington, Vol. II, p. 596.

[2] H. H. McIntyre, Vol. II, p. 42; T. F. Morgan, Vol. II, p. 62.

[3] Report of Capt. C. L. Hooper to the Treasury Department, dated June 14, 1892, Vol. I, p. 504.

[4] W. H. Dall, Vol. II, p. 24; Charles Bryant, Vol. II, p. 5.

[5] A. J. Hoffman, Vol. II, p. 446; Alfred Irving, Vol. II, p. 386.

[6] Charles Lutjens, Vol. II, p. 458; H. H. McIntyre, Vol. II, p. 42.

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from land.[1] The males pass much farther from the shore than the females, and travel more rapidly toward the islands.[2] The herd spreads along the coast in a long, irregular body, continually advancing northward until they begin to enter Bering Sea in May and June, through the eastern passes of the Aleutian Islands, seldom going west of Four Mountain Pass, but the last of the herd do not leave the Pacific until July.[3] The cows, however, are practically out of the Pacific Ocean by the middle of June.[4] A chart showing this migration has been prepared from the data contained in the depositions herewith submitted.[5]

The course.

The manner of traveling of the seals is divided by the pelagic sealers into different heads, namely, "sleeping," when a seal rests and sleeps on its back on the surface of the water with only its nose and the tips of its hind flippers protruding from the waves;[6] "finning," when it lies on its back gently moving its flippers;[7] "rol-

Manner of traveling.

[1] British Blue Book, U. S. No. 3 (1892), C-6635, p. 183; Annual Report of the Department of Fisheries, Dominion of Canada (1886), p. 267.

[2] Article by Dr. Allen, Part III, Vol. I, p. 405; Isaac Liebes, Vol. II, p. 454.

[3] Charles J. Hague, Vol. II, p. 207; C. H. Anderson, Vol. II, p. 205.

[4] H. H. McIntyre, Vol. II, p. 42; Watkins, Vol. II, p. 395; Alfred Irving, Vol. II, p. 386.

[5] See also Chart of Migration, Portfolio of maps and charts; British Blue Book, No. 3 (1892), C- 6635, p. 183.

[6] A. B. Alexander, Vol. II, p. 355.

[7] *Ibid.*, Vol. II, p. 355.

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The course.

ling," when lazily engaged in rolling over upon the surface of the water;[1] "traveling" or "feeding," when moving rapidly through the water,[2] and "breaching," when leaping out of the water like a dolphin.[2]

Herd does not land except on Pribilof Islands.

During their migration the seals never land upon the coast and no rookeries of fur seals are known to exist upon the North American continent or the islands adjacent thereto, except at the Pribilof Islands. Upon this point there is a unanimity of testimony, by scientists,[3] experts,[4] seal hunters of long experience,[5] traders,[6] and Indians along the coast and Aleutian chain of islands,[7] which precludes the possibility of the existence of rookeries other than those on the

[1] A. B. Alexander, Vol. II, p. 355.

[2] *Ibid.*, Vol. II, p. 355.

[3] W. H. Dall, Vol. II, p. 23.

[4] H. H. McIntyre, Vol. II, p. 40; John Fratis, Vol. II, p. 107.

[5] Daniel Clausen, Vol. II, p. 412; Lutjens, Vol. II, p. 459; Andrew Laing, in British Blue Book, U. S. No. 3 (1892), p. 183.

[6] M. L. Washburne, Vol. II, p. 488.

[7] Chickinoff (Kadiak Island), Vol. II, p. 219; Paul Young (Kasan), Vol. II, p. 292; Billy Yeltachy (Howkan), Vol. II, p. 302; Schkatatin (Yakutat Bay), Vol. II, p. 243; Ntkla-ah (Chatham Sound), Vol. II, p. 288; Nechantake (Icy Bay to Wrangel), Vol. II, p. 241; George La Cheek (Sitka Bay), Vol. II, p. 265; Hoonah Dick (Cross Sound), Vol. II, p. 258; Eliah Prokopief (Attu Island), Vol. II, p. 215; Filaret Prokopief (Attu Island), Vol. II, p. 216; Samuel Kahoorof (Attu Island), Vol. II, p. 214; Chief Anna-tlas (Takou Inlet), Vol. II, p. 254; Metry Monin (Cooks Inlet), Vol. II, p. 226; Nicoli Gregaroff (Prince William Sound), Vol. II, p. 234; Hastings Yethnow (Kaswan), Vol. II, p. 303; George Ketwooschish (Southeastern Alaska), Vol. II, p. 251.

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Herd does not land except on Pribilof Islands.

Pribilof Islands, or of the seals ever hauling out on the coast or neighboring islands; and Capt. Andersen, who has cruised seven years in Bering Sea, says the natives of Bristol Bay and St. Michael do not know what a fur-seal is.[1] Capt. Victor Jacobson, one of the best known sealers of Victoria, British Columbia, who has seen eleven years of seal hunting, and is the owner and master of the sealing schooner *Mary Ellen* and owner of the schooner *Minnie*, says: "I have never known a fur-seal to haul out upon any part of the coast of the United States, British Columbia, or Alaska. All parts of the coast have been visited by the seal hunters, and if seals hauled out any place it would have been known by the hunters."[2]

Herd does not enter inland waters.

This statement is made still stronger by the fact that the seals do not enter the inland waters of the coast during their migration, remaining always in the open sea or at the mouths of large bays, inlets, and gulfs.[3] Father Francis Verbeke, Roman Catholic priest at Barclay Sound, says that he has never seen or heard of fur-seals inside of Barclay Sound; they are all found out-

[1] Vol. II, p. 205.
[2] Vol. II, p. 329.
[3] John Margathe, Vol. II, p. 308; Billy Nahoo, Vol. II, p. 252; Konkonal, Vol. II, p. 251; Albert Keetnuck, Vol. II, p. 250

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Herd does not enter inland waters.

side.[1] Rev. William Duncan, for thirty years a missionary among the Vancouver Indians, and whose successful labors in civilizing and Christianizing the Indians is well known in Canada and the United States, states that he has never heard of fur seal hauling upon the coast of British Columbia or Alaska, or anywhere save on the Pribilof Islands.[2] Shucklean, an old Indian of Killisnoo, Chatham Sound, states that the seals do not frequent those waters, and he never saw a man who had seen a seal pup.[3] Kah-chuck-tee, the old chief of the Huchenoo Indians, states that he has visited all the inlets and islands in Chatham Sound and other parts of Alaska as far as Sitka and never saw a fur seal in the inland waters, and adds he would have heard of seal hauling upon the islands or mainland of Alaska from the Indians, who traded with his tribe for herring oil, if such a thing had occurred, but he had never heard such a report.[4] Ruth Burdukofski, a native of Unalaska Island, states that "no old seals ever haul out in this vicinity," but that in the fall pups sometimes come on shore after a heavy blow from the

[1] Vol. II, p. 311. See also Dick or Ehenshesut, Vol. II, p. 306; Clat ka-koi, Vol. II, p. 305.

[2] Vol. II, p. 279.

[3] Shucklean, Vol. II, p. 253. See also Keath Riley, Vol. II, p. 252; Toodays Charlie, Vol. II, p. 249.

[4] Kah-chuck-tee, Vol. II, p. 248.

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north; these he believes to have been separated from their mothers, and seek shelter and rest from the storm on the island.[1] Pud Zaotchnoi, one of the Aleut chiefs at Atka Island (near the center of the Aleutian chain), says that fur-seals never rest on the shores in that region.[2] It has been supposed that the fur-seals which formerly frequented the Guadalupe Islands and the coast of southern California were a portion of the Pribilof Islands herd which remained south to breed; a recent examination of specimens by Dr. Allen, Dr. Merriam, and Mr. Theodore Gill, all naturalists of repute, has proven that the Guadalupe Island fur-seal belongs to a species of the genus *Arctocephalus*, which is entirely distinct from the *Callorhinus ursinus*, and have united in a paper to that effect.[3] It is therefore certain that the Pribilof herd do not breed or land at any other point except the Pribilof Islands.

Herd does not enter inland waters.

The Russian seal herd on leaving the Commander Islands instead of turning eastward, like the Alaskan herd, turns westward,[4] entering the

The Russian herd.

[1] Ruth Burdukofski, Vol. II, p. 206. See also Paul Repin, Vol. II, p. 207; S. Melovedoff, Vol. II, p. 209, and David Salamatoff, Vol. II, p. 209; Ivan Krukoff, Vol. II, p. 209.

[2] Vol. II, p. 213. See also Kassian Gorloi, Vol. II, p. 213.

[3] Article by Dr. Allen, Part III, Vol. I, p. 406; Statement by Dr. Allen, Dr. Merriam, and Mr. Theodore Gill, Vol. I, p. 586. See also Isaac Liebes, Vol. II, p. 455.

[4] Charles J. Hague, Vol. II, p. 207.



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The Russian herd.

Sea of Okhotsk, where they are often found by whalers in the early spring,[1] and also range along the Japan coasts.[2] This shows the similarity of habits of these two herds, but at the same time is further evidence that they never intermingle.

## MANAGEMENT OF THE SEAL ROOKERIES.

### RUSSIAN MANAGEMENT.

After the discovery of the Pribilof Islands several Russian fur companies sent expeditions thither for the purpose of procuring seal skins and annually great numbers were taken. When the Russian American Company came into possession of these valuable rookeries in 1799, the unlimited slaughter ceased and a limitation was placed upon the number to be taken. Becoming more familiar with the condition and habits of the animals, especially their habit of polygamy, a further limitation was enforced providing that male seals alone should be killed, but no limitation was fixed as to the age of such males, the skins being procured from bulls, bachelors, and gray pups alike, the demands of the Chinese market being the principal guide as to the class taken. Toward the close of the Russian occu-

[1] Charles Bryant, Vol. II, p. 4.

[2] Report of American Bering Sea Commissioners, *post*, p. 323.

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pation, however, the taking of gray pups was practically stopped, except for food and seal oil, and the bachelor seals supplied nearly all the skins taken on the islands.[1] Under the general protective system adopted by Russia for seal life and the restrictions added from time to time, the seal herd continued to increase[2] until the Managers of the Russian American Company considered it possible and expedient to take seventy-thousand skins from St. Paul Island without danger of depleting the seal population.[3] The Aleuts, who had been brought to the islands when the company first came into possession of the rookeries, had through generations of experience become expert in the handling and taking of seals and discriminating between the killable and nonkillable classes; so that the annual quota of skins was procured with the least possible waste of life and disturbance of the breeding seals.

[1] Letter from Board of Administration of Russian American Company to Chief Manager Voyevodsky, dated April 24 1854, Vol. 1, p. 82.

[2] Letter from the Chief Manager to the Board of Administration of the Russian American Company, dated January 13, 1859; Vol. 1, p. 86; also same to same, dated October 7, 1857, Vol. I, p. 84.

[3] Letter from the Chief Manager of the Russian American Colonies to Mr. Milovidof, Manager of St. Paul Island, dated May 1 1864, Vol. I, p. 89.

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### THE SLAUGHTER OF 1868.

When the United States came into possession of these islands by the cession of 1867, it was impossible immediately to formulate an administrative system for all portions of the territory then so little known and so distant from the seat of government. The year 1868 was one of interregnum at the Pribilof Islands. Prof. W. H. Dall visited them that year, and briefly describes the state of affairs there existing. He says: "During my visit to St. George Island in 1868 this vast territory of Alaska had just fallen into the possession of the United States, and the Government had not yet fairly established more than the beginning of an organization for its management as a whole, without mentioning such details as the Pribilof Islands. In consequence of this state of affairs, private enterprise in the form of companies dealing in furs had established numerous sealing stations on the islands during 1868. During my stay, except on a single occasion, the driving from the hauling grounds, the killing and skinning, was done by the natives in the same manner as when under the Russian rule, each competing party paying them so much per skin for their labor in taking them. Despite the very bitter and more or less unscrupulous com-

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petition among the various parties, all recognized the importance of preserving the industry and protecting the breeding grounds from molestation and for the most part were guided by this conviction."[1] There being, however, no limitations as to numbers, about two hundred and forty thousand bachelor[2] seals' skins were taken that year from the Pribilof Islands.[3] The same year the United States Government had sent an agent to these islands, who unfortunately was delayed and compelled to winter at Sitka.[4]

## AMERICAN MANAGEMENT.

The following spring (1869) the Goverment agent, Dr. H. H. McIntyre, and a revenue vessel, under command of Capt. John A. Henriques,[4] reached the islands, and immediately took precautions to protect the seal herd from molestation; especial care being taken to prevent the breeding seal from being disturbed. The dogs on the islands were killed, and the firearms of the natives were taken possession of by the Government officials, in order that neither might terrify the occupants of the rookeries.[5] After these pre-

[1] Vol. II, p. 23.
[2] George R. Adams, Vol. II, p. 157.
[3] T. F. Morgan, Vol. II, p. 63.
[4] H. H. McIntyre, Vol. II, p. 47.
[5] J. A. Henriques, Vol. II, p. 31; Charles Bryant, Vol. II, p. 8.

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cautions the United States took up the consideration of the most advantageous manner of working the seal industry.

The lease of 1870.

Various recommendations and suggestions were made to the Congress of the United States in relation to this matter, but after a thorough and careful examination of the various methods proposed the most expedient was found to be the leasing of the islands to a single, reliable company, under the immediate supervision and control of agents of the United States Treasury Department duly appointed for that purpose. Pursuant to such investigation and conclusion, the Congress of the United States on July 1, 1870, passed an act accordingly,[1] and in August, 1870, Mr. Boutwell, Secretary of the Treasury, advertised for bids for the lease of the "seal fisheries" for twenty years. Of fourteen bids[2] offered by different companies and associations, that of the Alaska Commercial Company, with a capital of $2,000,000, was accepted by the Treasury as the one best fitted to promote "the interests of the Government, the native inhabitants, the parties heretofore engaged in the trade, and the protection of the seal fisheries," as required by the act of July 1, 1870.[3] The method

[1] U. S. Stats. at Large, Vol. XVI, c. 189.

[2] H. R. Doc. No. 108, Forty-first Congress, pp. 5–9.

[3] H. R. Doc. No. 108, Forty-first Congress, pp. 19, 20.

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of managing the rookeries thus established allowed the lessees to take one hundred thousand male seals over one year old during the months of June, July, September, and October of each year, and prohibiting the use of firearms or other methods tending to drive away the seals from the islands and the killing of seals in the water. In consideration for the skins thus obtained the lessees covenanted to pay to the Treasury of the United States annually fifty-five thousand dollars as rental of said islands, a revenue tax or duty of two dollars upon each fur-seal skin taken and shipped by them, and the further sum of sixty-two and one-half cents for each fur-seal skin taken; also to furnish, free of charge, the inhabitants of the islands of St. Paul and St. George annually twenty-five thousand dried salmon, sixty cords firewood, a sufficient quantity of salt and preserved meat; also to maintain a school on each island for at least eight months in each year, and not to sell any distilled spirits or spirituous liquors on said islands.[1] The lease thus granted was more advantageous to the Government of the United States and the inhabitants of the Pribilof Islands than the terms of leasing provided for in the act

Terms of lease.

[1] Lease to Alaska Commercial Company, Vol. I, p. 104.

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Terms of lease.

of July 1, 1870,[1] and far more favorable than the lease of the Commander and Robben islands granted by the Russian Government to the same company in 1871.[2]

Amendment of 1874.

On the 24th of March, 1874, an act amendatory of the act of July 1, 1870, was passed by Congress, by which the Secretary of the Treasury was given authority to designate the months in which seals might be taken on the islands and the number to be taken thereon;[3] thus placing the immediate control of the killing in the hands of the Government officials, with power to modify and reduce the quota allowed, at any time when it was deemed necessary for the protection of seal life upon the islands. It is evident, therefore, that the United States has taken the greatest precautions to limit the number killed in such a way as to preserve the seal herd from depletion.

Investigation of 1876.

The origin and practical workings of the lease of 1870 were made the subject of an elaborate investigation in 1876 by the Committee of Ways and Means of the Forty-fourth Congress, who reported that in their opinion the terms of the lease were highly favorable to the Government and

[1] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 8.

[2] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 7.

[3] U. S. Stats. at Large, vol. XVII, c. 64, p. 24.

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all parties concerned; and that "the contract as made was the best disposition of this interest that could have been made, for it is certain that it has resulted in the receipt of a very large revenue to the Treasury and in an amelioration of the physical and moral condition of the natives."[1] Investigation of 1876.

In a subsequent investigation in 1888, by the Committee on Merchant Marine and Fisheries of the Fiftieth Congress the same conclusion was reached, the report stating: Investigation of 1888.

"That the Alaska Commercial Company has fully performed its contract with the Government and has contributed largely to the support, maintenance, comfort, and civilization of the inhabitants, not only of the seal islands, but also to those of the Aleutian Islands, Kadiak, and the mainland."[2]

Both the above-mentioned committees also took into consideration the method of administering the seal rookeries as established by the act of July 1, 1870. One of the three following means must of necessity have been adopted for the management of the islands, viz, (1) leasing to a company; (2) making the rookeries free to the public; or (3) the Government itself working the rookeries. Methods of management.

[1] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 12.

[2] H. R. No. 3883, Fiftieth Congress, second session, p. xxiii.



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Unlicensed working impracticable.

The second course would concededly have resulted in the extermination of the Alaska seal herd in a very short time,[1] as it has in all cases where seal killing has been general and unlimited.[2]

Working by Government impracticable.

The third method, direct management by the Government, was also deemed impracticable to the committees who investigated the question. The committee of Congress in 1876 reported that in their judgment the Government could not advantageously assume charge itself of the seal industry and did wisely to intrust it to the Alaska Commercial Company.[3] The committee of Congress which made a thorough examination of the question in 1888 reported: "All these witnesses (those examined by the committee) concur in testifying to the wisdom of the existing law on the subject, and favor the retention of the present system. All other existing rookeries are managed substantially in the same way by the different Governments to which they belong, all following the lead of Russia, who managed and protected our rookeries by a similar method from their discovery until their transfer to the United

[1] Senate Doc. No. 48, Forty-fourth Congress, first session, p. 4.

[2] *Post*, p. 218.

[3] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 12.

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States. It did not require the testimony of witnesses to convince the committee that the Government itself could not successfully manage this business."[1] It is evident from the nature of the industry that in case the sealing on the islands should be managed directly by the Government the opportunities for fraud and theft are very great on the part of the agents, who under the act of 1870 are prohibited from being in anyway connected or interested in the industry; as it is now the lessees and agents are restraints upon each other. Further, the business requires expert knowledge of seal habits, the market, and the transactions pertaining to the sale of the skins, necessitating the presence of agents, not only on the islands, but in San Francisco and London, who are thoroughly conversant with these points. Immediate Government management is at once seen to be impracticable under these circumstances and the present method employed to be the only feasible one.

Working by Government impracticable.

The careful investigations made by the Congressional committees showed that the Alaska Commercial Company had fulfilled the terms of the lease in all respects according to the require-

Workings of the lease of 1870.

[1] Report No. 3883, House of Representatives, Fiftieth Congress, second session, p. xxiii.

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Workings of the lease of 1870.

ments of the Act of 1870;[1] that in compliance with the terms of the lease (many of which are not contained in the Act of 1870) the lessees furnished the inhabitants of the islands with a large number of commodious dwellings, without charging rent, and making free repairs;[2] built them two free schools;[3] kept stores at which goods were sold at low prices;[4] supplied them with free provisions, medicines, and medical attendance;[5] established and maintained for them a savings bank, with a total of over forty thousand dollars of deposits,[6] and prohibited the sale of intoxicating liquors on the islands.[7]

CONDITION OF THE NATIVES.

The improvement in the condition of the natives of the Pribilof Islands is one of the marked features of the benefit which has resulted

[1] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 11; Report No. 3883, House of Representatives, Fiftieth Congress, second session, p. xxiii.

[2] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 30; Report No. 3883, House of Representatives, Fiftieth Congress, second session., pp. 31, 32.

[3] Report No. 623, House of Representatives, Forty-fourth Congress, first session, pp. 30, 33; Report No. 3883, House of Representatives, Fiftieth Congress, second session, p. 31.

[4] Report No. 623, House of Representatives, Forty-fourth Congress, first session, p. 30, No. 3883, House of Representatives, Fiftieth Congress, second session, p. 32.

[5] Same report, p. 30.

[6] " " p. 31.

[7] " " p. 32.

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from the management of these islands under the system adopted in 1870 by the Congress of the United States.

Under the Russian Company.

When the United States Government assumed control of the territory of Alaska the condition of these natives was wretched in the extreme, the Russian American Company having neglected their welfare and forced them into practical slavery. Capt. Bryant, who had an opportunity to observe their condition prior to active occupation of the islands by the United States, describes and compares the situation of the natives under Russian management and under the system inaugurated by the United States. His testimony on this point is as follows:

"When I first visited the seal islands, in 1869, the natives were living in semisubterranean houses built of turf and such pieces of driftwood and whalebones as they were able to secure on the beach. Their food had been prior to that time insufficient in variety and was comprised of seal meat and a few other articles furnished in meager quantity by the Russian Fur Company. They had no fuel and depended for heat upon the crowding together in their turf houses, sleeping in the dried grasses secured upon the islands.

"Forced to live under these conditions, they

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Under the Russian Company.

could not of course make progress toward civilization. There were no facilities for transporting skins; they were carried on the backs of the natives, entailing great labor and hardship.

Under American control.

"Very soon after the islands came into the possession of the American Government all this was changed. Their underground earthen lodges were replaced by warm, comfortable wooden cottages for each family;[1] fuel, food, and clothing were furnished them at prices twenty-five per cent above the wholesale price of San Francisco; churches were built and schoolhouses maintained for their benefit, and everything done that would insure their constant advancement in the way of civilization and natural progress. Instead of being mere creatures of the whims of their rulers they were placed on an equal footing with white men and received by law a stipulated sum for each skin taken, so that about forty thousand dollars was annually divided among the inhabitants of the two islands. In place of the skin-clad natives living in turf lodges, which I found on arriving on the island in 1869, I left them in 1877 as well fed, as well clothed, and as well

[1] See photograph, Vol. II, p. 95, showing Village of St. Paul in 1870 and in 1891; and photographs of natives, Vol. II, pp. 8, 70, 133. Letter from Chief Manager Furuhelm to the Board of Administration of the Russian American Company, dated July 16, 1863; Vol. I, p. 88.

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housed as the people of some of our New England villages. They had school facilities, and on Sunday they went to service in their pretty Greek church, with its tastefully arranged interior; they wore the clothing of civilized men and had polish on their boots. All these results are directly traceable to the seal fisheries and their improved management."[1] Under American control.

In this comparison of condition and in the marked improvement following the American occupation, Dr. H. H. McIntyre also gives a graphic account, which is substantially the same as the one above quoted.[2] Mr. Samuel Falconer, who reached the islands in 1870, and remained until 1877, gives an account of the condition in which he found the natives and the great change which took place while he was located at the islands. He says: "When I came there they were partially dressed in skins, living in filthy, unwholesome turf huts, which were heated by fires with blubber as fuel; they were ignorant and extremely dirty. When I left they had exchanged their skin garments for well-made, warm woolen clothes; they lived in substantial frame houses heated by coal stoves; they had become cleanly, and the children were attending school eight Improvement.

[1] Vol, II, p. 8.
[2] Vol. II p. 599.

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Improvement.

months of the year.[1] They were then as well off as well-to-do workingmen in the United States, but received much larger wages. No man was compelled to work, but received pay through his chief for the work accomplished by him. A native could at any time leave the islands, but their easy life and love for their home detained them. When I first went there (1870) the women did a good share of manual labor, but when I came away (1877) the hard work was done by the men. I do not recall a single instance in history where there has been such a marked change for the better by any people in such a short time as there has been in the Pribilof Islanders since the United States Government took control of these islands."[2] Evidence might be multiplied on this point, but the foregoing testimony of eye-witnesses of the relative conditions of the natives under the Russian Company and again under that of the American Government is sufficient to show that the management of the Pribilof Islands by the United States has raised the inhabitants in a few years from a state of ignorance, wretchedness, and semibarbarism, which seventy years of the Russian Company's occupation had failed to alleviate, to a condition of liberty and civiliza-

[1] See photograph of school, Vol. II, pp. 9, 163.
[2] Vol. II, p. 162.

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tion, which Europe and America need not feel ashamed to find among their citizens.* Improvement.

The civil government of the islands is provided for by sections 1973–1976 of the Revised Statutes of the United States,[1] under which the agent and his assistants are practically the governors of the islands. They have the entire control of the natives, protect them from the impositions of the lessees' agents, if such are attempted, and see that the supplies required by law for their sustenance are provided. The handling of the seals on the islands, being entirely done by the natives, is directly under the supervision of the Government agents. Government agents.

With the expiration of the Alaska Commercial Company's lease the United States Treasury Department again advertised for and received ten formal bids, which were carefully considered, and in 1890 the Government leased the seal islands for another period of twenty years to the present lessees, The North American Commercial Company, which was decided to be the most advantageous bidder for the Government. Lease of 1890.

* N. B.—It should be observed that the affidavits of natives on the Pribilof Islands are signed by them, and that they have not simply "made their cross," as would be the method employed by many citizens of the civilized nations of the world.

[1] Vol. I, p. 98.



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Comparison of leases.

An examination of the lease now in force will show that it is not only more favorable to the Government, but also to the inhabitants of the islands than the former lease[1] in the following respects: (1) The rental is $60,000, instead of $55,000; (2) the tax per skin is $9.62½, instead of $2.62½; (3) 80 tons of coal are to be furnished the natives, instead of 60 cords of wood; (4) the quantity of salmon, salt, and other provisions to be furnished to them can be fixed by the Secretary of the Treasury; (5) the company is to furnish to the natives free dwellings, a church, physicians, medicines, employment, and care for the sick, aged, widows, and children; (6) instead of 100,000 seals per year, the company can take only 60,000 during the first year of the lease, and thereafter the catch is to be subject to the regulations of the Secretary of the Treasury. Under this lease it is difficult to see how the United States could have a more complete control over the seal industry on the islands, even if it took the entire management of the business. Leasing under such terms gives the Government absolute power in fixing the quota according to the condition of the herd, and at the same time avoids the details of management and disposing

[1] Lease to North American Commercial Company; Vol. I, p. 106.

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of the skins, which are the especial difficulties in the way of the United States working the rookeries itself. The course thus adopted by the United States seems as free from criticism or improvement as any that can be suggested.[1]

Comparison of leases.

## THE SEALS.

Having reviewed the general management of the Pribilof Islands as it pertains to the United States Government and the native islanders, the next point for consideration is the management of the seal herd, the methods employed in taking the seals, and the results of these practices upon the number and condition of the herd.

Control and domestication.

The peculiar nature and fixed habits of the seal make it an animal most easy of control and management. A herd of seals is as capable of being driven, separated, and counted as a herd of cattle on the plains.[2] In fact, they much resemble these latter in the timidity of the females and the ferocity of the males. One example of the ease with which they can be controlled is mentioned by Mr. Falconer, who speaks of a herd of three thousand bachelor seals being left in charge of a boy after they

[1] See favorable criticism of the methods employed in "Handbook of the Fishes of New Zealand," page 235.

[2] H. N. Clark, Vol. II, p. 159; "Handbook of the Fishes of New Zealand," page 235.

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Control and domestication.

had been driven a short distance from the hauling grounds.[1] Mr. Henry N. Clark, who was for six years (1884–1889) in the employ of the Alaska Commercial Company and in charge of the "sealing gang" on St. George Island, and who is therefore especially competent to speak of the possibilities of driving and handling the seals, says: "I was reared on a farm and have been familiar from boyhood with the breeding of domestic animals, and particularly with the rearing and management of young animals, hence the comparison of the young seals with the young of our common domestic species is most natural ´ From my experience with both I am able to declare positively that it is easier to manage and handle young seals than calves or lambs.[2] Large numbers of the former are customarily driven up in the fall by the natives to kill a certain number for food, and all could be 'rounded up' as the prairie cattle are if there was any need for doing so.[3] All the herd so driven are lifted up one by one and examined as to sex, and while in this position each could be branded or marked if necessary. If the seal

[1] Vol. II, p. 162. See also J. C. Redpath, Vol. II, p. 152.
[2] See also John Fratis, Vol. II, p. 109.
[3] See also Watson C. Allis, Vol. II, p. 98.

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rookeries were my personal property I should regard the task of branding all the young as no more difficult or onerous than the branding of all my calves if I were engaged in breeding cattle upon the prairies."[1] The foregoing statement as to the possibility of branding the young seals is supported by others equally experienced in seal life in the islands.[2] Dr. McIntyre, so long experienced in the handling of seals, says that "they are as controllable and amenable to good management upon the islands as sheep and cattle,"[3] and several other witnesses make like affirmations.[4] Chief Anton Melovedoff, already mentioned, states that "it is usually supposed that seals are like wild animals. That is not so. They are used to the natives and will not run from them. The little pups will come to them, and even in the fall, when they are older, we can take them up in our hands and see whether they are males or females. We can drive the seals about in little or large bands just as we want them to go, and they are easy to manage."[5]

Control and domesticaiton.

[1] Vol. II, p. 159.

[2] Charles Bryant, Vol. II, p. 5; S. M. Washburn, Vol. II, p. 156; H. V. Fletcher, Vol. II, p. 105; George H. Temple, Vol. II, p. 153.

[3] Vol. II, p. 53.

[4] J. M. Morton, Vol. II, p. 69; Leon Sloss, Vol. II, p. 91; H. V. Fletcher, Vol. II, p. 106; George H. Temple, Vol. II, p. 153; Gustave Niebaum, Vol. II, p. 77; John Armstrong, Vol. II, p. 2.

[5] Vol. II, p. 145.

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Control and domestication.

Several other Pribilof islanders and white men long resident there make similar statements.[1]

This peculiar susceptibility to control has also been and is recognized by such a well-known scientist as Dr. E. von Middendorff, of Russia, who, in a letter dated May 6/18, 1892, says: "This animal is of commercial importance and was created for a domestic animal, as I pointed out many years ago. (See my 'Siberian Journey,' Vol. IV, Part I, p. 846.) It is, in fact, the most useful of all domestic animals, since it requires no care and no expense and consequently yields the largest net profit."[2]

Regulations for killing.

This power of domestication has made it possible to discriminate most carefully between the classes of seals killed and to enforce rules and regulations for the general management of the herd. Rear-Admiral Sir M. Culver-Seymour, in a dispatch to the British Admiralty, says: "The seals killed by the Alaska Commercial Company are all clubbed on land, where the difference of sex can easily be seen."[3]

Protection of females.

The first regulation enforced by the Government of the United States was that no female

[1] John Fratis, Vol. II, p. 109; Daniel Webster, Vol. II, p. 182; J. C. Redpath, Vol. II, p. 152; Simeon Melovedoff, Vol, II, p. 147.

[2] Letter of Dr. E. von Middendorff, Vol. I, p. 431.

[3] British Blue Book, U. S. No. 2 (1890), C-6131, p. 4.

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seals should be killed.[1] Capt. Moulton, for eight years assistant Treasury agent on the islands, says: "No female is ever killed, and it is very seldom a female is driven."[2] Samuel Falconer assistant Treasury agent on the islands from 1870 to 1876, states that not more than two female seals a season were driven on St. George Island, and that he believed those were barren cows which had hauled up with the bachelors.[3] If a female seal was killed either intentionally or accidentally, the employé was fined.[4] This regulation preserves the producing sex, is not only observed by the native sealers on the Pribilof Islands, but the need of strictly conforming thereto is fully realized as a means of preservation of the species. Karp Buterin, the chief of the natives on St. Paul Island, who was born on the islands, and is the most intelligent of the natives,[5] says: "I know, and we all know, if we kill cows the seals soon die out and we would have no meat to eat; and if anyone told me to kill cows I would say no! If I or any of my people knew of anyone killing a cow, we would go and tell the

Protection of females.

[1] Louis Kimmel, Vol. II, p. 173; George Wardman, Vol. II, p. 178; H. G. Otis, Vol. II, p. 86; Anton Melovedoff, Vol. II, p. 142.

[2] Vol. II, p. 72; Daniel Webster, Vol. II, p. 181. J. C. Redpath, Vol. II, p. 149.

[3] Vol. II, p. 162.

[4] Anton Melovedoff, Vol. II, p. 139.

[5] Milton Barnes, Vol. II, p. 102.

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Protection of females.

Government officer."[1] And Mr. C. L. Fowler, who has been employed on the islands since 1879, says that nothing offends the natives quicker than to have a female killed.[2] With the coöperation of the natives, who alone do the driving and killing, violation of this regulation is impossible. Another evidence of the strictness with which this rule is enforced is the testimony of furriers to the fact that the skins of female seals are never seen among those taken on the Pribilof Islands.[3]

The killable class.

The class of seals allowed to be killed are the nonbreeding males from one to five years of age which "haul out upon the hauling grounds remote from the breeding grounds."[4] The handling of this class of seals because of their separation from the "breeders" causes the least possible disturbance to the seals on the breeding grounds.[5]

Disturbance of breeding seals.

Besides this the most stringent rules have been and are enforced by the Government to prevent any disturbance of the breeding seals.[6] Capt. W. C. Coulson, of the United States

[1] Vol. II, p. 103.

[2] Vol. II, p. 25.

[3] G. C. Lampson, Vol. II, p. 565. See also favorable comment on the wisdom of this regulation in "Handbook of the Fisheries of New Zealand," p. 236.

[4] J. Stanley Brown, Vol. II, p. 16; T. F. Morgan, Vol. II, p. 62.

[5] J. Stanley Brown, Vol. II, p. 16; Daniel Webster, Vol. II, p. 183.

[6] Charles Bryant, Vol. II, p. 8; S. N. Buynitsky, Vol. II, p. 22.

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Revenue Marine Service, who visited the islands in 1890 and 1891, says: "All firearms were forbidden and never have been used on these islands in the killing and taking of seals; in fact, unusual noise, even on the ships at anchor near these islands, is avoided. Visiting the rookeries is not permitted only on certain conditions, and anything that might frighten the seals is avoided. The seals are never killed in or near the rookeries, but are driven a short distance inland to grounds especially set apart for this work. I do not see how it is possible to conduct the sealing process with greater care or judgment."[1] Firearms are not permitted to be used on the islands from the time the first seal lands until the close of the season.[2]

Disturbance of breeding seals.

The number of seals allowed to be killed annually by the lessees was, from 1871 to 1889 inclusive, one hundred thousand,[3] but this number is variable and entirely within the control of the Treasury Department of the United States.[4] In 1889 Charles J. Goff, then the Government agent on the islands, reported to the Department that he considered it necessary to reduce the

Number killed.

[1] Vol. II, p. 414.
[2] J. C. Redpath, Vol. II, p. 150.
[3] J. Stanley Brown, Vol. II, p. 18; H. G. Otis, Vol. II, p. 85.
[4] J. Stanley Brown, Vol. II, p. 16.



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Number killed.

quota of skins to be taken in 1890.[1] The Government at once reduced the number to sixty thousand and ordered the killing of seals to cease on July 20.[1] The 20th of July was fixed upon because in former years the taking of seals had practically ceased at that time, the breeding grounds and hauling grounds being up to that time entirely distinct and separate, and because during the period from June 1 to July 20 the skins were in the most marketable condition.[2] The killing of a portion of the surplus male life is undoubtedly a benefit to the herd, as it is with other domestic and polygamous animals. For it has always been found that such an act increases the number of the progeny.[3] The American Commissioners also demonstrate by the diagrams attached to their report, which are explained in the body of the document, that a large portion of the young male seals can be killed without reducing or affecting the normal birth rate.[4] The United States Government formerly allowed the natives to kill a few thousand male pups for food, but such killing has been prohibited.[5]

[1] Vol. II, p. 112.

[2] H. G. Otis, Vol. II, p. 86.

[3] Leon Sloss, Vol. II, p. 92; Gustave Niebaum, Vol. II, p. 77; J. C. Redpath, Vol. II, p. 152.

[4] Report of American Bering Sea Commissioners. *post*, p. 356.

[5] J. Stanley Brown, Vol. II, p. 18; see Regulations, Vol. I, p. 103.

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Manner of taking.

The manner of taking seals on the islands is conducted with the greatest care and precautions[1] and is directly under the supervision of the Government agents.[2] The methods employed have been the same for twenty years,[3] without variation,[4] and it is the universal testimony of all acquainted with the methods employed that they can not be improved upon.[5] The natives, who are the only persons who ever drive or handle the seals,[6] start out between 2 and 6 o'clock in the morning when the weather is cool and there is the least liability of overheating the seals;[7] separating a small herd of bachelors from those occupying a hauling ground they drive them inland.[8] A hauling ground after a drive is given several days of rest and as a seal let go from the killing grounds always returns to the same hauling grounds, it has plenty of time to recuperate before being driven again.[9]

Driving.

The herd is then driven as slowly as possible while still keeping the animals in motion.[1] Ag-

[1] Charles Bryant, Vol. II, p. 8; M. C. Erskine, Vol. II, p. 422; W. C. Coulson, Vol. II, p. 414.
[2] B. F. Scribner, Vol. II, p. 89; J. H. Moulton, Vol. II, p. 72.
[3] W. S. Hereford, Vol. II, p. 36.
[4] H. H. McIntyre, Vol. II, p. 45.
[5] S. Falconer, Vol. II, p. 161.
[6] W. C. Coulson, Vol. II, p. 414; Samuel Falconer, Vol. II, p. 161; Simeon Melavidoff, Vol. II, p. 209.
[7] W. B. Taylor, Vol. II, p. 176.
[8] S. N. Buynitsky, Vol. II, p. 21.
[9] Daniel Webster, Vol. II, p. 182.

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Driving.

gie Kushin, native priest on St. Paul Island, says: "The seals are never driven at a greater speed than one mile in three hours; and the men who do the driving have to relieve each other on the road because they travel so slow they get very cold."[1] Other native seal drivers and officials on the islands also speak of the slowness of the driving.[2] At suitable intervals the herd is halted and seals of the unmarketable age are allowed to separate themselves from the rest and return to the water.[3] The greatest care has always been taken not to overheat the animals during a "drive," because the effect is very injurious.[4] Louis Kimmel, assistant Treasury agent in 1882 and 1883, says: "In every case of a seal being killed on the 'drive' I, as Government agent, imposed a fine in order that they might be more careful in the future."[5] Frequent stops are made to allow the seals to rest and cool off.[6] A drive is never undertaken while the sun is shining,[7] and if the sun unexpectedly comes out the drive is immediately aban-

[1] Vol. II, p. 129.
[2] J. C. Redpath, Vol. II, p. 150.
[3] Charles Bryant, Vol. II, p. 8.
[4] Samuel Falconer, Vol. II, p. 162; J. H. Moulton, Vol. II, p. 72.
[5] Vol. II, p. 173.
[6] J. H. Moulton, Vol. II, p. 72.
[7] J. H. Moulton, Vol. II, p. 72; A. P. Loud, Vol. II, p. 38; John Fratis, Vol. II, p. 107; Watson C. Allis, Vol. II, p. 97.

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doned and the seals allowed to return to the water.[1] The natives understand how much fatigue can be endured by the seals and the kind of weather suitable for "driving,"[2] therefore the number of seals killed by overdriving or by smothering was very inconsiderable at all times.[3] J. C. Redpath, who has since 1875 been one of the lessees' agents on the islands, says: "As the regulations require the lessees to pay for every skin taken from seals killed by the orders of their local agents, and as the skin of an overheated seal is valueless, it is only reasonable to suppose that they would be the last men living to encourage or allow their employés to overdrive or in any manner injure the seals."[4] Mr. Wardman says: "Seals are rarely killed by overdriving."[5] Mr. Buynitsky says he never saw a single seal killed by overdriving,[6] and Capt. Moulton states that "a very few seals die during a 'drive', amounting to a very small fraction of one per cent of those driven. And in nine cases out of ten of those accidentally killed by smothering, the skins

Driving.

[1] Samuel Falconer, Vol. II, p. 162; J. H. Moulton, Vol. II, p. 72; B. F. Scribner, Vol. II, p. 90; John Fratis, Vol. II, p. 107.
[2] W. C. Coulson, Vol. II, p. 414.
[3] H. H. McIntyre, Vol. II, p. 45.
[4] Vol. II, p. 150.
[5] Vol. II, p. 178.
[6] Vol. II, p. 21.

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Driving.

are saved."[1] The same statement as to the removal of the skins is stated by others, the skins being counted in the quota allowed to the lessees.[2] In fact it may be questioned whether any seals are ever killed on a "drive," except now and then one by smothering.[3]

Overdriving and redriving.

The effects of overdriving and redriving (that is, the repeated driving of the same animal several times during the season) upon the seals which from age or condition are unfit for killing, is of little or no importance in relation to seal life on the islands. After a "drive" the hauling ground is unmolested for several days and the seals let go from the killing grounds, returning to the same hauling grounds as is their habit, have, therefore, several days to rest and recuperate before undergoing whatever extra exertion is connected with being driven.[4] Certainly no male seal thus driven was ever seriously injured or his virility affected by such redriving.[5] Mr. John Armstrong, who from 1877 to 1886 was the lessees' agent on St. Paul Island, says: "The driving gave them, with rare exceptions, very

[1] Vol. II, p. 72. See also A. P. Loud, Vol. II, p. 38.

[2] George Wardman, Vol. II, p. 178; Samuel Falconer, Vol. II, p. 162; John Fratis, Vol. II, p. 107.

[3] John Fratis, Vol. II, p. 107.

[4] Daniel Webster, Vol. II, p. 182.

[5] A. P. Loud, Vol. II, p. 38; Charles Bryant Vol. II, p. 8; George Wardman, Vol. II, p. 179; Daniel Webster, Vol. II, p. 182.

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little more exercise than they appeared to take when left to themselves."[1] Anton Melovedoff, an educated native of St. Paul Island, and for seven years First Chief on the island, after stating the fact that before the American occupation the seals were driven sometimes twelve and one-half miles, says, "No one ever said in those days that seals were made impotent by driving, although long drives had been made for at least fifty years."[2] Mr. Samuel Falconer, in speaking of this question of redriving, says: "When we consider that the bulls, while battling on the rookeries to maintain their positions, cut great gashes in the flesh of their necks and bodies, are covered with gaping wounds, lose great quantities of blood, fast on the islands for three or four months, and then leave the islands, lean and covered with scars, to return the following season fat, healthy, and full of vigor to go through again the same mutilation, and repeating this year after year, the idea that driving or redriving, which can not possibly be as severe as their exertions during a combat, can affect such unequal vigor and virility is utterly preposterous and ridiculous."[3] Capt. Moulton, after eight years' experience on the

Overdriving and redriving.

[1] Vol. II, p. 1.
[2] Vol. II, p. 142.
[3] Vol. II, p. 162. See also Daniel Webster, Vol. II, p. 183.

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Overdriving and redriving.

islands, states it as his opinion that even if a seal was driven twelve successive days for the average distance between a hauling ground and a killing ground, its virility would not be at all impaired.[1] Mr. Taylor says in relation to injury to the reproductive powers of the male seals "it would at once be noticeable, for the impotent bull would certainly haul up with the bachelors, having no inclination and vigor to maintain himself on the rookeries."[2] The same methods of driving are employed on the Commander Islands, and the rookeries are smaller, necessitating more redriving and the drive on Copper Island takes often a day going over a ridge seven hundred feet high; and yet this driving, so much more severe than on the Pribilof Islands, has been carried on for over fifty years and is sufficient evidence that redriving does not injure the reproductive force of the male seal.[3] All the drives on the Commander Islands are rougher and more severe than on the Pribilof Islands.[4] That this injury to the male portion of the herd has not occurred is evidenced by the testimony of many on the islands in later years,[5] and Mr. Redpath, resident

[1] Vol. II, p. 72.
[2] Vol. II, p. 177.
[3] C. F. Emil Krebs, Vol. II, p.196.
[4] N. B. Miller, Vol. II, p. 200.
[5] H. H. McIntyre, Vol. II, p. 45; J. Stanley Brown, Vol. II, p. 18; Daniel Webster, Vol. II, p. 182; J. C. Redpath, Vol. II, p. 151; C. L. Fowler, Vol. II, p. 25.

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for seventeen years on the islands, adds: "The man is not alive who ever saw a six or seven year old bull impotent."[1] The killing grounds are located near the water, so that those seals whose skins are unmarketable can readily and with little exertion return to that element; they are also established as near the hauling grounds as is possible without having the odor from the carcasses disturb the breeding seals.[2] If it were not for this unavoidable cause of disturbance attendant upon the killing and skinning of the animals, driving in any form would not be necessary, but as it is, the killing must take place at some distance from the hauling and breeding grounds, which compels a certain amount of driving.

Overdriving and redriving.

The improvement over the Russian methods is marked in this particular, for in 1873[3] horses and mules were introduced by the lessees to transport the skins to the salt houses, previous to which time all this labor had been done by the natives, who were the sole beasts of burden on the islands;[4] and, therefore, the killing grounds were located much nearer to the hauling grounds than

Improvement over Russian methods of taking.

[1] Vol. II, p. 151.
[2] J. H. Moulton, Vol. II, p. 72; Daniel Webster, Vol. II, p. 182.
[3] Charles Bryant, Vol. II, p. 8.
[4] Letter from Chief Manager Furuhelm to the Board of Administration of the Russian American Company, dated July 16, 1863.



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Improvement over Russian methods of taking.

before this means of transportation was provided.[1] Anton Melovedoff states that "in the Russian times, before 1868, the seals were always driven across the island of St. Paul from North East Point (the largest of the rookeries) to the village salt house, a distance of twelve and one-half miles, but when the Alaska Commercial Company leased the islands they stopped long driving and built salt houses near to the hauling grounds, so that by 1879 no seals were driven more than two miles."[2] Other natives who were on the islands under both American and Russian control also speak of the shortening of the drives by the American lessees.[3] Under these improvements the killing season was reduced from three or four months under the Russian occupation to thirty or forty days,[4] showing how much American management has facilitated the taking of seals and reduced the number of days of disturbance to the herd. Kerrick Artomanoff, a native born on St. Paul Island sixty-seven years ago, and who has driven seals for fifty years and was chief for seventeen years, says: "The methods

[1] J. H. Moulton, Vol. II, p. 72; Charles Bryant, Vol. II, p. 9; H. H. McIntyre, Vol. II, p. 45.

[2] Vol. II, p. 142.

[3] Aggie Kushin, Vol. II, p. 129; Karp Buterin, Vol. II, p. 104; Daniel Webster, Vol. II, p. 182; J. C. Redpath, Vol. II, p. 150; Kerrick Artomanoff, Vol. II, p. 99.

[4] J. Stanley Brown, Vol. II, p. 18.

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used by the Alaska Commercial Company and the American Government for the care and preservation of the seals were much better than those used by the Russian Government."[1] Improvement over Russian methods of taking.

When a "drive" arrives at the killing grounds the animals are allowed to rest and cool off; then they are divided into groups or "pods" of from twenty to thirty;[2] the killable seals are carefully selected, those of three and four years being preferred;[3] the killing gang then club those selected, allowing the remainder to return to the water. Killing.

The skins are removed from the carcasses, counted by the Government agent, salted and packed in "kenches" at the salt houses. The flesh of the seals is taken by the natives for food.[4] Salting and kenching.

Under the Russian management many skins were lost through the drying process, and also from the glutted condition of the Chinese market, where the greatest number of the skins were disposed of by barter. Bishop Veniaminof says (vol. I, p. 296) that "in 1803 eight hundred thou- Improvement in treating the skins.

[1] Vol. II, p. 99.

[2] Daniel Webster, Vol. II, p. 182.

[3] H. H. McIntyre, Vol. II, p. 57; J. Stanley Brown, Vol. II, p. 16.

[4] Letter of Chief Manager Furnhelm to the Board of Administration of the Russian American Company, dated July 16, 1863, Vol. I, p. 88. A full account of the method of drying, salting, and packing the skins is given by Dr. H. H. McIntyre, Vol. II, p. 57.

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Improvement in treating the skins.

sand skins had accumulated, there being no profitable sale for them at Kiakhta (the Chinese market town), and besides a large proportion of the skins became spoiled, and more than seven hundred thousand were burned or thrown into the sea." But under American control all skins are salted, as will be seen by an examination of the London Trade Sales, and there is no waste.

Increase.

Under this careful management of the United States Government the seal herd on the Pribilof Islands increased in numbers, at least up to the year 1881. This increase was readily recognized by those located on the islands.[1] Capt. Bryant says that in 1877 the breeding seals had increased to such an extent that they spread out on the sand beaches, while in 1870 they had been confined to the shores covered with broken rocks.[2] Mr. Falconer mentions the fact that in 1871 passages or lanes were left by the bulls through the breeding grounds to the hauling grounds, which he observed to be entirely closed up by breeding seals in 1876,[3] and in this statement he is borne out by the testimony of Dr. McIntyre.[4] It must be remembered also in this connection that two

[1] Gustave Niebaum, Vol. II, p. 77; H. W. McIntyre, Vol. II, p. 138; Daniel Webster, Vol. II, p. 181; J. C. Redpath, Vol. II, p. 151.

[2] Vol. II, p. 7.

[3] Vol. II, p. 161.

[4] Vol. II, p. 44.

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hundred and forty thousand male seals had been destroyed in 1868, and that this increase took place in spite of that slaughter and although one hundred thousand male seals were taken annually upon the islands.[1] How this increase could be recognized has been already mentioned in connection with the question of estimating the number of seals, and is best shown by the charts marked A to K,[2] which have been verified by those most familiar with seal life during that period (1870 to 1881).[3] That this increase in the seal herd was undoubtedly the result of the methods and management employed by the American Government is a fact asserted and clearly proved.[4]

Increase.

## DECREASE OF THE ALASKAN SEAL HERD.

### EVIDENCE OF DECREASE.

From the year 1880 to the year 1884–'85 the condition of the rookeries showed neither increase nor decrease in the number of seals on the islands.[5] In 1884, however, there was a

Period of stagnation.

[1] London Trade Sales, Vol. II, p. 585; tables of seals taken, Vol. II, pp. 127 and 172.

[2] See portfolio of maps and charts and explanatory affidavits of H. H. McIntyre, Vol. II, p. 30; Charles Bryant, Vol. II, p. 3, and J. Stanley Brown, Vol. II, p. 20.

[3] H. H. McIntyre, Vol. II, p. 44; Charles Bryant, Vol. II, p. 7; T. F. Morgan, Vol. II, p. 64; Samuel Falconer, Vol. II, p. 167.

[4] J. C. Cantwell, Vol. II, p. 408; H. G. Otis, Vol. II, p. 87.

[5] J. Stanley Brown, Vol. II, p. 18; J. H. Moulton, Vol. II, p. 71; H. A. Glidden, Vol. II, p. 109.

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Period of stagnation.

perceptible decrease noticed in the seal herd at the islands,[1] and in 1885 the decrease was marked in the migrating herd as it passed up along the American coast, both by the Indian hunters along the coast[2] and by white seal hunters at sea.[3] Since that time the decrease has become more evident from year to year, both at the rookeries[4] and in the waters of the Pacific Ocean and Bering Sea.[5] The Bering Sea Commissioners of both Great Britain and the United States, in their joint report, affirm that a decrease has taken place in the number of the seal herd;[6] so that the simple fact is accepted by both parties to this controversy. But the time when the seals commenced decreasing, the extent of such decrease, and its cause are matters for consideration.

On Pribilof Islands.

The American Bering Sea Commissioners, after an exhaustive examination of the condition of the rookeries, as to the evidence of their former limits, and of individual witnesses who had observed the rookeries for several years,

[1] J. H. Moulton, Vol. II, p. 71; M. C. Erskine, Vol. II, p. 422; Anton Melovedoff, Vol. II, p. 139.

[2] Alfred Irving, Vol. II, p. 387; Bowachup, Vol. II, p. 376; N. Gregaroff, Vol. II, p. 234.

[3] E. W. Littlejohn, Vol. II, p. 457; A. McLean, Vol. II, p. 437.

[4] J. H. Douglass, Vol. II, p. 419; M. C. Erskine, Vol. II, p. 422; N. Mandrogin, Vol. II, p. 140.

[5] James Kennedy, Vol. II, p. 449; Charles Lutjens, Vol. II, p. 459.

[6] Joint Report of Bering Sea Commissioners, *post*, p. 309.

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On Pribilof Islands.

state that the spaces now covered by seals are much less in area than formerly, and that a marked yearly decrease is shown to have taken place during the last five or six years.[1] Karp Buterin, native chief of the St. Paul Islanders, who has lived on the island all his life, says: "Plenty schooners came first about eight or nine years ago and more and more every year since; and the seals get less ever since schooners came; and my people kept saying, 'No cows! no cows!"[2] Dr. William S. Hereford, who was resident physician on the Pribilof Islands from 1880 to 1891, inclusive, says: "It is an indisputable fact that large portions of the breeding rookeries and hauling grounds are bare, where but a few years ago nothing but the happy, noisy, and snarling seal families could be seen;"[3] and Mr. A. P. Loud, assistant Treasury agent on the islands from 1885 to 1889, says there was a very marked decrease in the size of the breeding grounds from 1885 to 1889.[4] Capt. Coulson, of the United States Revenue Marine, who cruised in Bering Sea in 1870, 1890, and 1891, also mentions the fact that the decrease in one year (1890–'91) was

[1] Report of American Bering Sea Commissioners, *post*, p. 340.
[2] Karp Buterin, Vol. II, p. 103; See also C. L. Fowler, Vol. II, p. 25.
[3] Vol. II, p. 36.
[4] Vol. II, p. 38.

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On Pribilof Islands.

very noticeable.[1] Commander Turner, Royal Navy, in a dispatch to Rear-Admiral Hotham, dated on the *Nymphie* at Esquimault, October 8, 1891, states that "on the largest rookery, a great tract of land, which a few years ago had been covered with seals, and the bowlders and rocks which had been worn smooth by them, was now totally deserted, and no increase had been observed on other rookeries to compensate for this deficiency."[2]

How great has been the decrease in the number of seals is most plainly shown by the charts marked A to K. The areas covered by breeding seals in 1891, which were carefully platted by the Government surveyor from observations and measurements made by him during his survey, should be compared with the lines of increase heretofore mentioned.[3] M. C. Erskine, a sea captain of twenty-four years' experience in Alaskan waters, speaks of the scarcity of seals in Bering Sea in 1890 as compared with the numbers seen in former years.[4] Treasury Agent Goff, who was in charge of the islands in 1889 and 1890, and who had reported the decrease of seals to the Government, in consequence of which report the

[1] Vol. II, p. 415.
[2] British Blue Book, U. S. No. 3 (1892) C–6635, p. 113.
[3] *Ante*, p. 165.
[4] Vol. II, p. 422.

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number of seals to be taken had been reduced to sixty thousand, and the time for killing limited to July 20,[1] says: "As a result of the enforcement of these regulations the lessees were unable to take more than twenty-one thousand two hundred and thirty-eight seals of the killable age, of from one to five years, during the season of 1890, so great had been the decrease of seal life in one year, and it would have been impossible to obtain sixty thousand skins even if the time had been unrestricted."[2] He further adds that the weather in 1890 was as favorable to seal driving as in 1889 (when one hundred thousand skins were taken) and the driving was conducted as diligently in the latter year as in the former.[2] Besides the foregoing testimony, the natives and white residents on the islands state that the seals began to decrease in 1885 or 1886, and that the decrease has been the most rapid in the last three years.[3]

On Pribilof Islands.

Evidence.

Thomas Gibson, a seal hunter since 1881, says there has been a great decrease in the number of seals in the North Pacific and Bering Sea since

Along the coast.

[1] *Ante*, p. 153.

[2] Vol. II, p. 112.

[3] Anton Melovedoff, Vol. II, p. 143; Aggie Kushin, Vol. II, p. 128; Nicoli Krukoff, Vol. II, p. 132; John Fratis, Vol. II, p. 108; Alexander Hansson, Vol. II, p. 116; Daniel Webster, Vol. II, p. 181; C. L. Fowler, Vol. II, p. 141; Edward Hughes, Vol. II, p. 37.



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Along the coast.

he began hunting,[1] and he is supported in this statement by James L. Carthcut, captain of a sealing vessel from 1877 to 1887, Alexander McLean, a captain of a sealing schooner for eleven years, Daniel McLean, also with eleven years' experience, and many others.[2] Peter Brown, chief of the Makah Indians at Neah Bay, in the State of Washington, a tribe who from time immemorial have been expert seal hunters and have through their industry acquired much property[3] and are among the few civilized aboriginal tribes of North America, testifies to the decrease in the seal herd.[4] Hastings Yethow, an old Indian residing at Nicholas Bay, Prince of Wales Island, who has hunted seals from boyhood, says: "Since the white men with schooners began to hunt seal off Prince of Wales Island, the seals have become very scarce and unless they are stopped from hunting seal they will soon be all gone. If the white men are permitted to hunt seal much longer the fur-seal will become as scarce as the sea-otter, which were quite plenty around Dixon Entrance when I was a boy. The Indians are obliged to go a

[1] Vol. II, p. 432.

[2] G. Fogel, Vol. II, p. 424; G. Isaacson, Vol. II, p. 440; James Sloan, Vol. II, p. 477; J. D. McDonald, Vol. II, p. 266; Louis Culler. Vol. II, p. 321.

[3] Vol. II, p. 378.

[4] *Ibid.*, pp. 377, 378.

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long way for seal now, and often return after two or three days' hunt without any."[1] George Skultka, chief of the Hyda Indians at Howkan, says: "There are no seals left now; they are most all killed off."[2] Chief Frank, Second Chief of the Kaskan Indians, states that "fur seal are not as plenty as they used to be and it is hard for the Indians to catch any," and closes his testimony with the words, "there is one thing certain, seals are getting scarce."[3] Thomas Lowe, a seal hunter belonging to the Clallam tribe, Vassili Feodor, a native hunter of the village of Soldovoi in Cooks Inlet, and many other Indians living along the coast from the Straits of Juan de Fuca to Cooks Inlet, make the same assertion.[4] That this decrease, in respect to which the evidence is so unanimous from every point of observation, was not caused by any change in the methods employed on the islands has already been shown by the testimony of numerous reliable witnesses, who prove that

Along the coast.

[1] Vol. II, p. 303. See also Chief Thomas Skowl, Vol. II, p. 300; Smith Natch, Vol. II, p. 299; Nashtou, Vol. II, p. 298; Robert Kooko, Vol. II, p. 296.

[2] Vol. II. p. 290.

[3] Vol. II, p. 280.

[4] Alfred Irving, Vol. II, p. 387; Circus Jim (Neah Bay), Vol. II, p. 380, 381; Weckennnesch (Barclay Sound), Vol. II, p. 311; Martin Singay (Sitka Bay), Vol. II, p. 268; Kinkooga (Yakutat Bay), Vol. II, p. 240; Mike Kethusduck (Sitka Bay), Vol. II, p. 262; Echon (Shakan) Vol. II, p. 280; Simeon Chin-koo-tin (Sitka Bay), Vol. II, p. 257.

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Along the coast.

there was no change in the manner of handling and taking the seals in the last decade from that employed in former years, during which the seal herd materially increased.[1]

## CAUSE.

Lack of male life not the cause.

Nor was this marked decrease chargeable to the fact that there were not sufficient males to serve the females resorting to the islands.[2] Mr. J. C. Redpath, already quoted as one thoroughly familiar with seal life on the islands, says: "A dearth of bulls on the breeding rookeries was a pet theory of one or two transient visitors, but it only needed a thorough investigation of the rookeries to convince the most skeptical that there were plenty of bulls and to spare, and that hardly a cow could be found on the rookeries without a pup at her side."[3] Karp Buterin, Head Chief of the natives of St. Paul Island, says: "Plenty of bulls all the time on the rookeries, and plenty bulls have no cows. I never seen a three-year-old cow without a pup in July; only two-year-olds have no pups."[4] Agent Goff particularly testifies that although the lessees had much diffi-

[1] *Ante*, p. 164.

[2] J. Stanley Brown, Vol. II, p. 18; Anton Melovedoff, Vol. II, p. 142; Daniel Webster, Vol. II, p. 181.

[3] Vol. II, p. 151.

[4] Vol. II, p. 104.

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culty to procure their quota in 1889, a sufficient number of males were reserved for breeding purposes.[1] Col. Joseph Murray, assistant agent on the islands in 1890, and still holding that position, says: "I saw nearly every cow with a pup by her side and hundreds of vigorous bulls without any cows."[2] And this statement is supported by Mr. J. Stanley Brown, who was on the islands in 1891.[3] Maj. W. H. Williams, the present agent of the United States Government on the Pribilof Islands, and who held that position in 1891, says: "During the season of 1891 nearly every mature female coming upon the rookeries gave birth to a young seal, and there was a great abundance of males of sufficient age to again go upon the breeding grounds that year, as was shown by the inability of large numbers of them to secure more than one to five cows each, while quite a number could secure none at all.[4] Aggie Kushin, for several years assistant priest in the Greek Catholic Church, and resident on St. Paul Island since 1867, says: "We noticed idle, vigorous bulls on the breeding rookeries because of the scarcity of cows, and I have noticed that the cows have decreased steadily every year since 1886,

Lack of male life not the cause.

[1] Vol. II, p. 112.
[2] Vol. II, p. 74.
[3] Vol. II, p. 14.
[4] Vol. II, p. 94.

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Lack of male life not the cause.

but more particularly so in 1888, 1889, 1890, and 1891."[1] And the fact that the conflicts took place between the bulls on the rookeries in 1890 and 1891 is sufficient to show that virile males were not lacking.[2] It has also been shown that the decrease in the seals took place primarily among the female portion of the herd.

Raids on rookeries not the cause.

Raids upon the rookeries, or the unlawful killing of seals on the islands by unauthorized persons, though injurious to seal life,[3] have played no important part in the history of the rookeries, and the few thousand skins thus secured never affected the number of the seal herd to any extent.[4] The American Commissioners, after asserting that the number of seals killed by raiders is very inconsiderable, continue: "It is also difficult for one familiar with the rookeries and the habits of the seal to conceive of a raid being made without its becoming known to the officers in charge of the operations upon the islands. The 'raid theory,' therefore, may be dismissed as unworthy, in our judgment, of serious consideration."[5] Mr. Stanley

[1] Vol. II, p. 128. See also John Fratis, Vol. II, p. 109; H. N. Clark, Vol. II, p. 159; Daniel Webster, Vol. II, p. 181.

[2] Report of American Bering Sea Commissioners, *post*, p. 349.

[3] H. H. McIntyre, Vol. II, p. 46; T. F. Morgan, Vol. II, p. 65.

[4] W. B. Taylor, Vol. II, p. 177; J. H. Moulton, Vol. II, p. 72; H. H. McIntyre, Vol. II, p. 46; Aggie Kushin, Vol. II, p. 128; John Fratis, Vol. II, p. 108.

[5] Report of American Bering Sea Commissioners, *post*, p. 378.

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Raids on rookeries not the cause.

Brown, in considering this question, and after a careful examination of the statistics relating thereto, says: "The inhospitable shores, the exposure of the islands to surf, the unfavorable climatic conditions, as well as the presence of the natives and white men, will always prevent raids upon the islands from ever being frequent or effective."[1] A further evidence of the infrequency of such marauding is clearly shown by the affidavit of Mr. Max Heilbronner, Secretary of the Alaska Commercial Company, as compiled from the records of said company,[2] and the statement compiled by the Treasury Department from the reports of their agents during American occupation, there being but sixteen such invasions reported.[3] If other raids had taken place besides these, the fact would have certainly have been known on the islands, as their effect would have been seen on the breeding grounds in the shape of dead carcasses of pups and other seals.[4] The difficulty of landing upon the rookeries without being discovered is also made evident from the ineffectual efforts of predatory vessels to land men on the islands, which are

[1] J. Stanley Brown, Vol. II, p. 18.
[2] Max Heilbronner's statement, Vol. II, pp. 112-127.
[3] Treasury Department, statement of raids, Vol. II, p. 519.
[4] Anton Melovedoff, Vol. II, p. 143.

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Raids on rookeries not the cause.

described by members of the crews of such vessels.[1]

Management of rookeries not the cause.

If, then, this marked decrease in the Alaskan seal herd has not been caused by the way the seals are handled or killed upon the islands, nor by a lack of male life resulting from excessive destruction of bachelor seals by the lessees of the seal rookeries with the consent of the Government of the United States, nor by the depredations of marauding parties upon the islands, another cause of destruction must be sought.

Excessive killing the admitted cause.

It is admitted by all parties to this controversy that a decrease has taken place in the Alaskan seal herd which has been "the result of excessive killing by man."[2] The acts of man in destroying seal life can be performed either upon the islands which the seals have chosen for their home or in the waters of the Pacific Ocean or Bering Sea, while the herd is performing its annual migration or during its stay at the islands. That such destruction of the species on the islands has not caused the great decrease in the number of seals has already been shown; there remains, therefore, but one other possible cause, namely, the killing of seals during their migra-

Pelagic sealing the sole cause.

[1] Joseph Grymes, Vol. II, p. 434; Peter Duffy, Vol. II, p. 421.

[2] Joint Report of the American and British Commissioners, *post*, p. 309.

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tion or in the waters adjacent to the islands; in other words, the sole cause of the present depleted condition of the Alaskan seal herd is ~~the result of~~ open-sea sealing. This is shown particularly from the fact that the decrease has been principally in the female portion of the seal herd,[1] which will be shown later to form from eighty to ninety per cent of the pelagic catch.[2] That such is the cause of decrease is the concurrent opinion of a great number of witnesses, Indians and whites, of many occupations and of varied experience. The American Bering Sea Commissioners, after a careful and exhaustive examination into the question of decrease, report the cause to be pelagic sealing.[3] Dr. J. A. Allen, after examining and duly weighing the sources of information, American, British, and Canadian, declares it to be his opinion that pelagic sealing has been the sole cause of the great decrease in the Alaskan seal herd.[4] Such witnesses as Thomas F. Morgan, H. H. McIntyre, and others, of twenty years' experience with the Alaskan herd and thoroughly conversant with all the conditions and phases of seal life, state

Pelagic sealing the sole cause.

Opinions.

American commissioners.

Dr. Allen.

Experts.

[1] Report of American Bering Sea Commissioners and the witnesses examined by them, *post*, p. 341; Karp Buterin, Vol. II, p. 103.

[2] Report of American Bering Sea Commissioners, *post*, p. 367.

[3] Report of the American Bering Sea Commissioners, *post*, p. 379.

[4] Article by Dr. Allen, Part III, Vol. I, p. 410.



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Experts.

the sole cause of the decrease to be pelagic sealing.[1] Capt. Daniel Webster, already mentioned, and one of the most, if not the most, experienced white man in seal habits and life, after mentioning the increase of seals from 1870 to 1880 and the rapid decrease from 1884 to 1891, says: "In my judgment there is but one cause for that decline and the present condition of the rookeries, and that is the shotgun and rifle of the pelagic hunter, and it is my opinion that if the lessees had not taken a seal on the islands for the last ten years we would still find the breeding grounds in about the same condition as they are to-day, so destructive to seal life are the methods adopted by these hunters."[2] Dr. W. S. Hereford, with eleven years' experience on the seal islands, says: "I made the conditions of seal life a careful study for years, and I am firmly of the opinion their decrease in number on the Pribilof Islands is due wholly and entirely to hunting and killing them in the open sea."[3] Charles F. Wagner, who was located at Unalaska in 1871, and has been a fur trader since 1874 to the present time, says: "I am

[1] T. F. Morgan, Vol. II, p. 65; H. H. McIntyre, Vol. II, p. 46; Gustave Niebaum, Vol. II, p. 203.

[2] Vol. II, p. 184.

[3] Vol. II, p. 36.

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sure the decrease is caused by the killing of females in the open sea."[1] (It will be shown later in discussing the method and catch of open-sea sealing vessels that a large percentage of the seals thus taken are females.)[2] Prof. W. H. Dall, the well known scientist and author, says: "It is evident that the injury to the herd from the killing of a single female, that is, the producer, is far greater than from the death of a male, as the seal is polygamous in habit; the destruction to the herd, therefore, is just in proportion to the destruction of female life. Killing in the open waters is peculiarly destructive to this animal."[3] Experts.

A large number of Indians along the Pacific coast from Oregon to the passes of the Aleutian Islands, whose depositions are appended hereto, are unanimous in declaring the cause of decrease in the seal herd to be open-sea sealing as it has been conducted for the past six or seven years. Evan Alexandroff, priest at Soldovoi in Cook's Inlet, unites with several native seal hunters of that locality in stating that "fur-seals were formerly much more plentiful, but of late years are becoming constantly scarcer. This is, we think, owing to the number of vessels engaged in hunt- Indian hunters.

[1] Vol. II, p. 212.
[2] *Post* p. 196.
[3] W. H. Dall, Vol. II, p. 24.

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Indian hunters.

ing them at sea."[1] Nicoli Apokche, a native fur trader at Fort Alexander, Cook's Inlet, says: "Fur seals were formerly observed in this neighborhood in great numbers, but of late years they have been constantly diminishing, owing to the large numbers of sealing vessels engaged in killing them,"[2] and his affidavit is signed by several other natives of that region engaged in seal hunting. Peter Brown, the old chief of the Makah Indians, already quoted, says: "White hunters came here about five or six years ago and commenced shooting the seals with guns, since which time they have been rapidly decreasing and are becoming very wild."[3] Ellabash, another Indian of the same tribe, confirms this statement in the following words: "Seals are not so plentiful now as they were a few years ago. They began to decrease about five or six years ago. A good many years ago I used to capture seals in the Straits of Juan de Fuca. but of late years, since so many schooners and white men have come around here shooting with guns, that only a few come in here and we do not hunt in the Straits any more. I used to catch forty or fifty seals in one day, and now if I get

[1] Vol. II, p. 229.
[2] Vol. II, p. 224.
[3] Peter Brown, Vol. II, p. 378.

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six or seven I would have great luck. I have to go a long distance to get seals now. Seals are wild and afraid of an Indian. They have become so since the white man and the trader began to shoot them with shotguns and rifles. In a short time there will be no seals left for the Indian to kill with the spear."[1] Watkins, also a a Makah Indian, who has hunted seals for forty years in a canoe off Cape Flattery, after mentioning the decrease in the seals, says: "So many schooners and white men are hunting them with guns all along the coast that they are getting all killed off."[2] Many other members of the same and other tribes also add their testimony that the cause of decrease in the migrating herd is due to pelagic sealing by white men.[3] Indian hunters.

Numerous pelagic sealers also, in spite of their interest being contrary to such a conclusion, admit, not only the decrease in the number of seals, but that such decrease has been caused by those engaged in their occupation. Frank Johnson, for ten years a seal hunter, on being asked the question to what he attributed the decrease, replied: "The increase of the fleet and killing of all the White sealers.

[1] Vol. II, p. 385.
[2] Vol. II, p. 395.
[3] Ishka, Vol. II, p. 388; Wispoo, Vol. II, p. 397; George La Cheek, Vol. II, p. 265; Jim Kasooh, Vol. II, p. 296; King Kaskwa, Vol. II, p. 295; Percy Kahiktday, Vol. II, p. 261.

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White sealers.

females," adding that if continued the seal herd would soon be exterminated.[1] Alexander McLean, the well known sealing captain, accounts for the decrease as being the result of killing the female seals in the water, and there is no chance for the seals to increase because so many vessels are going into the sealing business.[2] Daniel McLean attributes the decrease to "killing off the females."[3] He is supported in this statement by H. Harmsen, a seal hunter of many years' experience;[4] Niles Nelson,[5] Adolphus Sayers,[6] and others engaged in the same occupation.[7] William Hermann, who has been a seal hunter for more than a decade, says: "I think they (the seals) are decreasing on account of their being hunted so much."[8] William McIsaac says: "I think there are so many boats and hunters out after them that they are being killed off; they are hunted too much."[9] William H. Long, a captain of a sealing vessel, takes the same view of the

[1] Vol. II, p. 441.
[2] Vol. II, p. 437.
[3] Vol. II, p. 444.
[4] Vol. II, pp. 442, 443.
[5] Vol. II, p. 470.
[6] Vol. II, p. 473.
[7] Peter Collins, Vol. II, p. 413; James Kiernan, Vol. II, p. 450; Gustave Isaacson, Vol. II, p. 440.
[8] Vol. II, p. 446.
[9] Vol. II, p. 461.

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matter,[1] as also many other sealers do.[2] Others less intimately acquainted with the business of open-sea sealing, but from experience and knowledge of seal life qualified to judge as to the cause of decrease, unite in casting the entire blame upon the pelagic sealing industry.[3] Agent Goff, in speaking of pelagic sealing, says: "If continued as it is to-day, even if killing on the islands was absolutely forbidden, the herd will in a few years be exterminated."[4] This unanimity of opinion, as expressed by every class and condition of witnesses, scientists, sealers, both Indian and white, those who have watched the seals upon the islands and those who have seen the animals during their migration up the coast, is further supported by the statistics of the sealing fleet, its catch and number, as compared with the years when no increase was observable on the islands and when decrease was noted.

White sealers.

The period of so-called stagnation in the number of the seal herd has been shown to be from 1880 to 1884–'85.[5] According to the table of the sealing fleet, prepared from all available

Increase of sealing fleet.

[1] Vol. II, p. 458.

[2] E. P. Porter, Vol. II, p. 347; James E. Lennan, Vol. II, p. 370; Michael White, Vol. II, pp. 490, 491; J. D. McDonald, Vol. II, pp. 266, 267.

[3] Joseph Murray, Vol. II, p. 74; H. H. McIntyre, Vol. II, p. 46; Charles J. Goff, Vol. II, p. 112; J. Stanley Brown, Vol. II, pp. 17, 18, 19, 20.

[4] Vol. II, p. 113.

[5] *Ante*, p. 165.

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Increase of sealing fleet.

sources,[1] the vessels had increased from two in 1879 to sixteen in 1880; up to 1885 the number of vessels varied from eleven to sixteen annually. Besides this it will be shown, subsequently, that the hunters employed on these vessels during the period from 1880 to 1885 were principally Indians, and that their method of taking seals, though injurious, is not nearly as destructive of life as that employed by other hunters. In 1886, the year when the decrease in the seal herd was first noticed along the coast, the fleet increased from fifteen vessels to thirty-four, and over thirty-eight thousand skins were known to have been secured that year.[2] In 1887 there were forty-six vessels engaged in sealing, but a less number of skins were taken. In 1888, owing to the seizure of several schooners in Bering Sea by the United States Government, the fleet fell off to thirty-nine vessels, the catch being about thirty-seven thousand.[3] No seizures being made in 1888, the fleet increased again in 1889, numbering sixty-nine vessels, with a total catch of over forty thousand.[4] Vessels having been seized in 1889, the number again fell off in 1890 to sixty, but the catch increased to nearly

[1] Table of sealing fleet, Vol. I, p. 591.
[2] Report of American Bering Sea Commissioners, *post*, p. 366.
[3] Report of American Bering Sea Commissioners, *post*, p. 366.
[4] *Ibid.*, *post*, p. 366.

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fifty thousand.[1] In 1890 the sealers were unmolested, and so in 1891 the number of vessels was nearly doubled, reaching the enormous figure of one hundred and fifteen,[2] but the catch, because of the ever-increasing scarcity of the seals, reached but sixty-two thousand five hundred.[2]* The agreement between Great Britain and the United States in relation to pelagic sealing in Bering Sea in 1892, and the orders to naval vessels pursuant thereto, have not been of such a nature as to invite investment in the sealing fleet, and yet, in spite of the restrictions imposed and dangers incurred, the fleet of sealing vessels for 1892 is known to contain at least one hundred and twenty-three,[3] which is below the actual number, as undoubtedly vessels have been engaged of which the United States Government has received no reports. The decrease in the seal herd has thus been proportionate to the increase of the sealing fleet.[4] Another significant fact in this connection is that, until the period of decrease began, the sealing vessels did not, as a

Increase of sealing fleet.

[1] Report of American Bering Sea Commissioners, *post*, p. 366.

[2] *Ibid.*, *post* p. 371.

[3] Table of sealing fleet, Vol. I, p. 591.

[4] J. C. Redpath, Vol. II, p. 141; Alexander C. Shyha, Vol. II, p. 226.

* It is probable that the various annual catches given are much too small, as it has been most difficult to obtain data and statistics in this respect.



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Increase of sealing fleet.

rule, enter Bering Sea.[1] William Parker, for ten years engaged in the sealing business, says: "There was hardly ever a sealing schooner that went to Bering Sea during these years (1881–1884) or prior to 1885."[2] John Morris, a mate of a sealing vessel for several years, says: "Prior to this (1885) I had never been in the Bering Sea, and with but few exceptions sealing vessels did not visit those waters."[3] These two facts, then, are plainly shown, that when the sealing fleet consisted of a small number of vessels, carrying Indian hunters, and the sealing was confined to the Pacific coast, no decrease took place in the number of seals; but all increase ceased when the sealing fleet increased in numbers. The vessels being outfitted with white hunters, using firearms, and the hunting grounds extended so as to include Bering Sea, the decrease in the seal herd became marked and rapid, constantly becoming greater as the fleet of sealing vessels increased.

Comparison of sealing fleet and decrease.

[1] Andrew Laing, Vol. II, p. 335; Charles Peterson, Vol. II, p. 346.
[2] Vol. II, p. 344.
[3] Vol. II, p. 340.

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## PELAGIC SEALING.

### HISTORY.

Sealing by Coast Indians.

Open-sea sealing, the sole cause of the enormous decrease noted in the Alaskan seal herd in the last few years, and which threatens its extermination in the near future, was carried on by the Pacific coast natives in their canoes for many years previous to the introduction of sealing schooners. The catch was small, ranging from three to eight thousand annually,[1] and there was little or no waste of life from the loss of seals killed and not secured, as will be seen when the means and manner of hunting employed by the Indians is considered.

Vessels used.

Even after vessels were employed in the industry, which, according to Mr. Morris Moss, vice-president of the Sealers' Association of Victoria, British Columbia, was about the year 1872,[2] the fleet was small, not numbering over half a dozen vessels.[2] Indians only were employed as hunters, and the seals were killed with spears.[2] With the introduction of schooners to carry the canoes out into the ocean, the sealing grounds were extended

[1] C. M. Scammon, Vol. II, p. 475.
[2] Morris Moss, Vol. II, p. 341.

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Vessels used.

from the area covered by a canoe trip of twenty miles from a given point on the coast[1] to the waters frequented by the migrating herd from the Columbia River to Kadiak Island.[2] In 1883 the schooner *San Diego* entered Bering Sea and returned to Victoria with upwards of two thousand skins. This gave impetus to the trade, and new vessels embarked in the enterprise.[3]

Introduction of firearms.

About 1885 a new method of hunting was introduced, which has been the great cause of making pelagic seal hunting so destructive and wasteful of life—the use of firearms.[4] White men now became the principal hunters, and where previously the number of skilled and available sealers had necessarily been limited to a few hundred coast natives, the possibility of large rewards for their labors induced many whites to enter the service of those engaged in the business of seal destruction. From that time forward the sealing fleet rapidly increased in number,[5] until it now threatens the total extinction of the northern fur-seal.

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[1] Peter Brown, Vol. II, p. 377; Alfred Irving, Vol. II, p. 386; Wilson Parker, Vol. II, p. 392; Hish Yulla, Vol. II, p. 397.

[2] Peter Brown, Vol. II, p. 377.

[3] Morris Moss, Vol. II, p. 341.

[4] Charlie, Vol. II, p. 304; Moses, Vol. II, p. 309; Wispoo, Vol. II, p. 396.

[5] *Ante*, p. 183; Gustave Niebaum, Vol. II, p. 78.

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## METHOD.

Vessels, outfit, etc.

The vessel commonly used in sealing is a schooner ranging from twenty to one hundred and fifty tons burden; the average tonnage per vessel for the Victoria fleet in 1890 being 63.2 tons.[1] The number of hunters and canoes or boats carried by a sealer depends upon the size of the vessel, but the average number of canoes is between ten and sixteen, each manned by two Indians,[2] and when the hunters are whites the boats generally number five or six.[3] In some cases both Indians and whites are employed on the same vessel.[4] The average number of men to a vessel in 1890 was twenty-two.[1]

Indian hunters.

The Indian hunter almost invariably uses a spear, and though in the last two or three years firearms have been carried in the canoe,[5] the principal weapon used by him is still the spear.[6] A full description of the spear, canoe, and manner of hunting is given by Lieut. J. H. Quinnan, who accompanied some of the Indians in their canoe during a hunting excursion.[7] The most

[1] Canadian Fisheries Report, 1890, page 183.
[2] Niels Bonde, Vol. II, p. 315-316; Moses, Vol. II, p. 310.
[3] Patrick Maroney, Vol. II, p. 464; J. Jamieson, Vol. II, p. 329-330; Niels Bonde, Vol. II, p. 316.
[4] James Dalgarduo, Vol. II, p. 364.
[5] Peter Brown, Vol. II, p. 377; Morris Moss, Vol. II, p. 341.
[6] Peter Brown, Vol. II, p. 377; Moses, Vol. II, p. 309.
[7] Report of Lieut. J. H. Quinan, Vol. I, p. 504. See also A. B. Alexander, Vol. II, p. 352.

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Indian hunters.

expert spearsmen are the Makah Indians of Neah Bay, Washington.[1] The Indian, from his method of hunting, loses very few seals that he strikes, securing nearly all.[2]

White hunters.

The white hunter, on the contrary, loses a great many seals which he kills or wounds.[3] Each boat contains a hunter, a boat-steerer, and a boat-puller;[4] the hunter uses a rifle,[5] a shotgun,[6] or both,[7] the shotgun being loaded with buckshot.[8] A minute description of the methods employed by both white and Indian hunters is given by Capt. C. L. Hooper, commander of the United States revenue steamer *Corwin*, who was many years in the waters of the North Pacific and Bering Sea, and makes his statements from personal observation.[9]

## RESULTS.

Waste of life.

There are two ways in which a seal may be destroyed by this method of hunting without

[1] A. B. Alexander, Vol. II, p. 352.

[2] Thomas Zolnoks, Vol. II, p. 399; Osly, Vol. II, p. 391; Watkins. Vol. II, p. 395.

[3] James Kiernan, Vol. II, p. 450; James Kennedy, Vol. II, p. 449,

[4] Thomas Lyons, Vol. II, p. 460; James Moloy, Vol. II, p. 463; James Kennedy, Vol. II, p. 449.

[5] James Kennedy, Vol. II, p. 449; Eddie Morehead, Vol. II, p. 467; George Zammitt, Vol. II, p. 507.

[6] L. G. Shepard, Vol. II, p. 188; Adolphus Sayers, Vol. II, p. 473.

[7] Patrick Maroney, Vol. II, p. 464; Peter Collins, Vol. II, p. 413.

[8] Charles Lutjens, Vol. II, p. 459.

[9] Report of Capt. C. L. Hooper to the Treasury Department, dated June 14, 1892; Vol. I, p. 498. See also as to white hunters. William Brennan, Vol. II, p. 360, 361.

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being secured; one is by wounding it so that, though it still retains vitality enough to escape from the hunter, it subsequently dies of its injuries; the other is by the sinking of the seal, killed outright, before the boat can be brought alongside and the carcass seized by the hunter. Waste of life.

Of the first of these means of loss Dr. Allen says: "Those only wounded, whether fatally or otherwise, dive and escape capture. The less severely wounded may, and in many cases doubtless do, recover from their wounds, but in the nature of things many others must die of their injuries. There is a wide range of chances between an instantaneously fatal or disabling shot and a slight wound from which the victim may readily recover, with obviously a large proportion of them on the fatal side of the dividing line."[1] This is self-evident when the fact is taken into consideration that the boat is in almost constant motion, and the mark is the small head of a seal among the waves thirty, forty, fifty,[2] or, when a rifle is used, even a hundred yards[3] from the hunter. Four other conditions also modify this possibility of loss; first, the state of the weather, for if the water is rough the boat and Wounding.

[1] Article by Dr. Allen, Part III, Vol. I, p. 409.
[2] T. T. Williams, Vol. II, p. 494.
[3] T. T. Williams, Vol. II, p. 503.

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Wounding.

the seal having more motion the percentage of those killed or stunned by the shot is much less than when the sea is smooth;[1] second, the condition of the seal shot at, for if breeching, the shot being at the body is not as liable to paralyze the animal, though it may be as fatal as when the seal is asleep on the water with only a portion of its head exposed as a mark;[2] third, the skill of the hunter is also to be considered;[3] and fourth, whether or not the seals are wild and hard to approach, in which case the hunter is from necessity compelled to fire at long range. The Indian hunters, with their spears, who are forced to approach much nearer the game than a white hunter armed with rifle or shotgun, speak particularly of the increased timidity of the seals since firearms have been used in taking them.[4] They also state that many seals taken by them have shot imbedded in their bodies,[5] and some are badly wounded.[6] This, besides being evidence of the great number wounded and lost, naturally tends to making the seals fearful of the approach of man. Not only has the increase in the num-

[1] John H. Dalton, Vol. II, p. 418; James Kiernan, Vol. II, p. 450; William McIsaac, Vol. II, p. 461.

[2] T. T. Williams, Vol. II, p. 494, 504; Niles Nelson, Vol. II, p. 469.

[3] Daniel Claussen, Vol. II, p. 412; Luther T. Franklin, Vol. II, p. 425; James Kiernan, Vol. II, p. 450; James Kean, Vol. II, p. 448.

[4] James Lighthouse, Vol. II, p. 389; Watkins, Vol. II, p. 395.

[5] Wispoo, Vol. II, p. 397; James Lighthouse, Vol. II, p. 390.

[6] James Lighthouse, Vol. II, p. 390.

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ber of white hunters in the last few years made the seals much wilder than before firearms were used, but it has also added largely to the number of inexperienced hunters engaged in sealing. It is only necessary, in order to show how much the unskillful outnumber the skillful hunters, to refer to the agreement entered into by the members of the Sealers' Association of Victoria, British Columbia, for the season of 1891; the portion of the agreement referring to this matter is as follows: "We also bind ourselves not to take more than three experienced hunters in the sealing business on each vessel represented by us, said hunters to be engaged at the scale or lay adopted by this Association, as hereinbefore particularly described; and we also agree that all hunters required in excess of the three hunters above mentioned for each vessel shall be new men at the business of seal hunting, and shall be engaged at the same scale or lay hereinbefore mentioned, and this clause shall apply to all vessels owned or controlled by the members of this Association, whether clearing from the port of Victoria or other ports in Canada or the United States, or any port where any vessel owned or controlled by any member of this Association may be fitting out for sealing on this coast."[1]

Wounding.

[1] See British Blue Book, U. S. No. 1 (1891), C-6253, p. 82.



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Wounding.

The number of hunters thus allowed to a vessel is therefore about one-half the number of those actually taken on a vessel employing white hunters.

Sinking.

Besides those lost by wounding, in many cases, others killed outright are not taken, because the specific gravity of the seal being greater than water[1] it sinks before it can be secured.[2] In order to save as many of the sinking seals as is possible, each boat carries a gaff,[3] with a handle from four to six feet long, with which to grapple the carcass, if the point where it sank can be reached in time to do so.[4] Of course in securing a sinking seal much depends on the distance from which the seal was shot, the condition of the water, whether rough or smooth, and whether or not darkened by the blood of the animal,[5] as also the skill of the hunter in marking with his eye the place where the seal sank. It can, therefore, be seen that the range of possible and probable loss in case the seal is killed outright is certainly large, though not so great as when the seal is wounded.

[1] Article by Dr. Allen, Part III, Vol. I, p. 409.

[2] Thomas Brown (No. 1), Vol. II, p. 319; Bernhardt Bleidner, Vol. II, p. 315; John W. Smith, Vol. II, p. 233; John Woodruff, Vol. II, p. 506.

[3] T. T. Williams, Vol. II, p. 504; L. G. Shepard, Vol. II, p. 188.

[4] T. T. Williams, Vol. II, p. 504; Henry Mason, Vol. II, p. 465; James Laflin, Vol. II, p. 451.

[5] Henry Brown, Vol. II, p. 318.

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Percentage lost of those killed.

Under the circumstances, it is most difficult to fix the actual number of seals destroyed and not secured by hunters using fire arms; but it is a conservative estimate to say that such hunters lose at least two out of every three seals shot by them. Charles Chalall, a seal hunter, says: "The average hunter would get one out of every three seals shot; a poor hunter not nearly so many."[1] Thomas Gibson, a seal hunter, or engaged in the sealing business, since 1881, says: "An ordinary hunter would not get more than one out of every three or four that he killed."[2] Daniel McLean states "that about one-third are taken;"[3] and Capt. Martin Benson, of the sealing schooner *James G. Swan*, says about sixty-six per cent. are lost.[4] These men are all hunters of long experience, and their statements are not only supported by many others,[5] but numerous witnesses give the number lost at a much larger figure. E. W. Soron, mate of a sealing vessel in 1888, says: "We only got about one out of every five killed."[6] Thomas Brown (No. 1), a boat-puller for three years,

[1] Vol. II, p. 411.
[2] Vol. II, p. 432.
[3] Vol. II, p. 443.
[4] Vol. II, p. 405.
[5] Thomas Lyons, Vol. II, p. 460; Bernhardt Bleidner, Vol. II, p. 315; M. L. Washburne, Vol. II, p. 489; Martin Hannon, Vol. II, p. 445.
[6] Vol. II, p. 479.

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Percentage lost of those killed.

states: "I don't think we got more than one seal out of six that we killed."[1] Caleb Lindahl, a seal hunter, says: "On an average a hunter gets one seal out of four. I have known of poor hunters loosing nine out of ten."[2] Henry Mason, also a seal hunter, says: "I do not think they would get more than one seal out of every six or seven they shot, and sometimes only one out of ten."[3] To these statements are added many others by competent and experienced witnesses, which may be found in the Appendix hereto annexed.[4] When the estimate, therefore, is placed at sixty-six seals unsecured out of every hundred killed with fire arms, the probability is that the percentage lost is even more Certainly this percentage is constantly increasing, for the rapid growth of the sealing fleet in the last two years has increased the number of unskillful hunters, and the constant hunting of the herd has made the seals wilder each year than the year before.[5]

Destruction of female seals.

Besides the great waste of life caused by the present method of sealing, another feature of pelagic hunting adds greatly to its destructive effect upon the Alaskan seal herd, namely, the

[1] (No. 1), Vol. II, p. 319.
[2] Vol. II, p. 456.
[3] Vol. II, p. 465.
[4] William Parker, Vol. II, p. 344; Olaf T. Kvam, Vol. II, p. 236; William McIsaac, Vol. II, p. 461; George Usher, Vol. II, p. 291.
[5] Thomas Brown (No. 1), Vol. II, p. 319.

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Destruction of female seals.

fact that from eighty to ninety per cent of the seals killed in the open sea are females, the majority of which are either pregnant, or having been delivered of their pups, are the sole means of sustenance for their offspring. The sex of a seal can not be told when it is in the water, except an old bull seal, who can be recognized by his size.[1] Under these circumstances it is impossible to discriminate as to sex,[2] and no effort is made to do so, the hunters shooting or spearing every seal that approaches the boat.[3] On this point there is a large array of testimony to be found in the Appendix. Rear-Admiral Sir M. Culme-Seymour, in a communication to the British Admiralty, says, in relation to this matter: "I may mention that female seals can not be distinguished from males when killed asleep on the water at sea."[4] As has already been shown, the destruction of the females of the herd is the principal cause of the decrease,[5] and the full extent of the pernicious effects of pelagic sealing is clearly shown on examination of the sex of the seals taken by the sealing vessels.

[1] J. A. Bradley, Vol. II, p. 227; Chickinoff et al., Vol. II, p. 219; F. F. Feeney, Vol. II, p. 220.

[2] E. W. Soron, Vol. II, p. 479; Charles Peterson, Vol. II, p. 345.

[3] Gregaroff, et al., Vol. II, p. 234; N. Hodgson, Vol. II, p. 367; E. Morehead, Vol. II, p. 467.

[4] Inclosure 3 in No. 3, British Blue Book, U. S. No. 2 (1890), C-6131, p. 4.

[5] *Ante*, p. 177.

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Testimony of British furriers.

The first witnesses to receive consideration on this point are those who have handled and sorted the "Northwest" or pelagic catch. The skins of males and females can be readily distinguished from each other by those at all experienced in the fur trade.[1]

Sir George Curtis Lampson, head of the firm of C. M. Lampson & Co., one of the oldest and largest of the London fur houses, states that "the skins of the Northwest catch are largely the skins of female seals."[2] Mr. H. S. Bevington, head of the London firm of Bevington & Morris, fur dealers, which was organized in 1726, says: "The skins of the Northwest catch are at least eighty per cent of them the skins of the female animal," and that prior to and in preparation of his deposition "he carefully looked through two large lots of skins now in his Warehouse for the especial purpose of estimating the percentage of female skins found among the Northwest catch."[3] Mr. Walter Edward Martin, head of the English firm of C. W. Martin & Sons, the largest dressing and dyeing house of fur-seal skins in London, and successors of Martin & Teichmann, gives the percentage of females in the pelagic catch at

[1] George Liebes, Vol. II, p. 511; B. H. Sternfels, Vol. II, p. 522.
[2] Vol. II, p. 565.
[3] Vol. II, p. 552.

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seventy-five to eighty per cent.[1] Mr. Emil Teichmann, of the firm of C. M. Lampson & Co., and formerly a member of the firm of Martin & Teichmann, mentioned above, states "that practically the whole of the adult, Northwest catch, seals were the skins of female seals."[2] Mr. Henry Poland, head of the London fur firm of P. R. Poland & Son, says that a very large proportion of the adult skins of the Northwest catch are "obviously the skins of female animals."[3] Mr. George Rice, engaged for twenty-seven years in the dressing and dyeing of seal skins in the city of London, and who has handled a large proportion of the Northwest skins, says: "That in the Northwest catch from eighty-five to ninety per cent of the skins are of the female animal."[4] And Mr. William C. B. Stamp, who has been a London fur merchant for thirty years, estimates the percentage of females in the catch of sealing vessels to be "at least seventy-five per cent" and probably more.[5] All the above prominent English furriers are subjects of Her Britannic Majesty. George Bantle, who has been a sorter and packer of raw seal skins for twenty years, gives the principal characteristics by which the skins of the two

Testimony of British furriers.

[1] Vol. II, p. 569.
[2] Vol. II, p. 581.
[3] Vol. II, p. 571.
[4] Vol. II, p. 573. See also Isaac Liebes, Vol. II, p. 453.
[5] Vol. II, p. 575.

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Testimony of British furriers.

sexes can be determined,[1] as do also Mr. John J. Phelan[2] and Mr. William Wiepert,[3] both experienced furriers. Mr. Alfred Fraser, a subject of Her Britannic Majesty, and a member of the London firm of C. M. Lampson & Co., says: "That he would have no difficulty whatever in separating the skins of the 'Northwest' catch from the skins of the 'Alaska' catch by reason of the fact that they are the skins almost exclusively of females." This fact that the Northwest skins are so largely the skins of females is further evidenced by the fact that in many of the early sales of such skins they are classified in deponent's books as the skins of "females."[4]

Other British testimony.

Sir George Baden-Powell, one of the British Bering Sea Commissioners, addressed a letter to the London Times, which appeared in that paper November 30, 1889, in which he says: "Their (the Canadian sealers') catch is made far out at sea, and is almost entirely composed of females." On the 29th day of April, 1891, Mr. C. Hawkins, a subject of Her Britannic Majesty, addressed a letter to the Marquis of Salisbury, in which he states that "since about the year 1885 we have received in this country (England) large numbers of seal skins known in the trade

[1] Vol. II, p. 508.
[2] Vol. II, p. 519.
[3] Vol. II, p. 535.
[4] Vol. II, p. 558.

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as Northwest skins, the same having been taken in the open sea, and, from appearances that are unmistakable to the initiated, are exclusively the skins of female seals pregnant."[1] Other British testimony.

And the Canadian Minister of Marine and Fisheries, to whom the letter was referred, states "that the testimony produced by Mr. Hawkins in this connection is quite in accord with the information hitherto obtained."[2] In the Canadian Fisheries Report of 1886 the following statement appears: "There were killed this year so far from forty to fifty thousand fur-seals, which have been taken by schooners from San Francisco and Victoria. The greatest number were killed in Bering Sea, and were nearly all cows or female seals."[3] And again in the said report for 1888 appears the statement that the fact can not be denied "that over sixty per cent of the entire catch of Bering Sea is made up of female seals."[4] Rear-Admiral Hotham, Royal Navy, in a dispatch to the British Admiralty, dated September 10, 1890, states that he personally saw Capt. C. Cox, of the schooner *Sapphire*, Captain Petit, of the schooner *Mary Taylor*, Captain Hackett, of the schooner *Annie Seymour*, Canadian testimony.

[1] British Blue Book. U. S. No. 3 (1892), C-6635, p. 5.
[2] British Blue Book, U. S. No. 3 (1892), C-6635, p. 75.
[3] Page 267.
[4] Report of the Department of Fisheries, Dominion of Canada (1888), p. 240



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Canadian testimony.

and Capt. W. Cox, of the schooner *Triumph*, and that "they also mentioned (among other things) that two-thirds of their catch consisted of female seals, but that after the 1st July very few indeed were captured 'in pup.'"[1]

Testimony of American furriers.

Herman Liebes for thirty-five years engaged in the seal-skin industry, and the largest purchaser of the skins brought into Victoria, British Columbia, by sealing vessels,[2] says that he "has frequently requested the captains of poaching vessels sailing from the port of Victoria and other ports, to obtain the skins of male seals, and stated that he would give twice as much money, or even more, for such skins than he would pay for the skins of female seals. Each and all of the captains so approached laughed at the idea of catching male seals in the open sea, and said that it was impossible to do it, and that they could not catch male seals unless they could get upon the islands, which, except once in a long while, they were unable to do in consequence of the restrictions imposed by the United States Government; because, they said, the males were more active, and could outswim any boat which their several vessels had, and that it was only the female seals who were heavy with young which could be caught."[3]

[1] British Blue Book, U. S. No. 1 (1891), C-6253, p. 17.

[2] Vol. II, p. 513; British Blue Book, U. S. No. 1 (1891), C-6253, p. 80; Vol. II, p. 564.

[3] Vol. II, p. 512.

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Examination of pelagic catch of 1892.

Besides the testimony of the witnesses above stated, 3,550 seal skins were shipped this year from Victoria, British Columbia, to Treadwell & Co., of Albany, New York, being a portion of the "spring catch," so called, of 1892, taken by the sealing fleet along the Pacific coast. At the request and under the direction of the Government of the United States, these skins were examined by an expert in handling seal skins, Mr. John J. Phelan, for twenty-four years engaged in the fur business, for the purpose of determining the sex of the seals from which they were taken. Such examinations resulted in showing that of the 3,550 skins, 2,167 were taken from female seals, 395 from male seals, and the remainder, 988, from pups, seals under two years of age,[1] whose sex could not easily be determined, which shows that the proportion of females in the catch of a sealing vessel is to the males as 11 to 2, or 84½ per cent. The examiner of these skins also shows how the difference in the sex can be readily determined.[1] Mr. Charles Behlow, for thirty-four years engaged in the handling and sorting of seal skins, at the request of the Government of the United States, examined, in June, 1892, four lots

[1] Vol. II, p. 520.

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Examination of pelagic catch of 1892.

of skins landed at San Francisco from sealing vessels, being the "spring catch" for 1892 of said vessels. These lots aggregated 813 skins, which on examination proved to consist of 681 skins of adult female seals, 49 skins of adult male seals, and 95 skins of pup seals less than one year old.[1] The proportion of cows in these lots is shown to be to the males as about 14 to 1, or 93 per cent. The increased proportion of females in this examination over the examination made in New York is explainable from the fact that the New York examiner did not extend his examination to seals under two years of age, while the San Francisco examiner classed as pups only the seals less than one year old On the 13th of July, 1892, the same expert examined the catch of the schooner *Emma and Louise*, consisting of 1,342 skins, taken this spring along the Northwest coast. Of the number, 1,112 were the skins of females, 132 of males, and 98 of gray pups less than one year old.[1] The proportion of female seals taken by this vessel as compared with the males is thus shown to be 89 per cent. George Liebes, a furrier, who has handled many thousands of the Northwest skins, in connection with his deposition attaches

[1] Vol. II, p. 402.

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Examination of pelagic catch of 1892.

exhibits showing plainly how, even in the dressed and dyed skins, the sex of the animal can be readily determined,[1] and also, in the cases of the female, whether the animal was in a state of virginity, pregnancy, or maternity, the comparative size of the nipples being the test, which in the case of the two skins of males (bachelor and bull) are scarcely observable.

Testimony of pelagic sealers.

Added to this testimony of experienced furriers, a large number of those engaged in seal hunting, whose depositions are appended hereto, affirm that the seals taken by them are principally females. Luther T. Franklin, a seal hunter of three years' experience, states that about ninety or ninety-five per cent of those secured are females.[2] Daniel McLean, an experienced sealer, says that about ten in a hundred of the seals taken are males.[3] Alexander McLean, on being asked the percentage of females in a catch, replied: "Say I would bring two thousand seals in here, I may have probably about a hundred males; that is a large average."[4] Charles Lutjens, also a seal hunter, places the average of females taken at ninety per cent,[5] and in this he

[1] Vol. II, p. 512.
[2] Vol, II, p. 425.
[3] Daniel McLean, Vol. II, p. 444.
[4] Vol. II, p. 437.
[5] Charles Lutjens, Vol. II, p. 458.

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Testimony of pelagic sealers.

is supported by many others of the same profession.[1] Other sealers, without fixing a percentage, state that the seals taken are "principally"[2] or "most all"[3] females.

Examination of catch of vessels seized.

The skins ~~also~~ upon vessels seized by United States officers in Bering Sea, which were subsequently examined, also show a similar ratio of destruction of female life. Captain Shepard says that over twelve thousand skins taken from sealing vessels seized in 1887 and 1889 were examined, and at least two-thirds or three-fourths were the skins of females.[4] Mr. A. P. Loud, assistant Treasury agent, who in 1887 captured the sealing schooner *Angel Dolly*, personally examined the skins found on board, and he states that "about eighty per cent were the skins of females."[5] Capt. A. W. Lavender, assistant Treasury agent on St. George Island, in September, 1891, made a personal examination of one hundred and seventy-two skins, the catch of the schooner *Challenge* in Bering Sea, and of the whole number only three were the skins of male seals.[6] It is only necessary to examine such an

[1] William Short, Vol. II, p. 348; F. Johnson, Vol. II, p. 441; H. Harmsen, Vol. II, p. 442; A. J. Hoffman, Vol. II, p. 446.

[2] William H. Long, Vol. II, p. 457; James Kean, Vol. II, p. 448; James Kennedy, Vol. II, p. 449.

[3] George Zammitt, Vol. II, p. 507; Adolph Sayers, Vol. II, p. 473; Thomas Brown (No. 1), Vol. II, p. 319.

[4] Vol. II, p. 189.

[5] Vol. II, p. 39.

[6] Vol. II, p. 265.

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array of testimony as the foregoing to determine the cause of the rapid decrease in the Alaskan seal herd. Examination of catch of vessels seized.

But in addition to this great slaughter of the producing sex, another waste of life is caused, as already stated, through the pregnancy or maternity of a large proportion of these female seals. As long ago as 1869 Capt. C. M. Scammon, of the United States Revenue Service, and author of "The Marine Animals of the Northwestern Coast of North America" (published in 1874), observed that nearly all the seals taken by the Indians near Vancouver Island were pregnant females, and August 30, 1869, he addressed a letter on the subject of the double slaughter resulting to the Secretary of the Treasury.[1] Bowachup, a Makah Indian hunter, says: "I never killed any full-grown cows on the coast that did not have pups in them."[2] Daniel McLean says: "The females are mostly all with pup."[3] P. S. Weittenhiller, owner of the sealing schooner *Clara*, states that of sixty seals taken this season (1892) forty-six were pregnant females.[4] James Kiernan, a sealer, states that Destruction of pregnant females.

[1] Vol. II, p. 474.
[2] Vol. II, p. 376.
[3] Vol. II, p. 444.
[4] Vol. II, p. 274.

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Destruction of pregnant females.

the seals killed in the North Pacific are mostly females carrying their young.[1] James Jamieson, a sealer of five years' experience, makes the same statement.[2] Frank Morreau, with five or six years' experience as a seal hunter, says that about seventy-five per cent of the cows taken are "in pup,"[3] and many others make similar statements.[4]

Reason pregnant females are taken.

One reason why such a large proportion of pregnant female seals are taken along the coast is clearly stated by Andrew Laing in his examination before Collector Milne, of the port of Victoria, British Columbia, the deponent being recognized by the collector as one of the most experienced seal hunters. On being questioned as to whether he noticed "any marked difference in the manner the females carrying their young travel as compared with the males," he replied: "The only difference I could see is that they will travel very fast for a little distance, and then turn up and rest." And again being asked whether he thought the pregnant female more shy than the male, he answered, "No, I think

[1] Vol. II, p. 450.
[2] Vol. II, p. 329.
[3] Vol. II, p. 468.
[4] William Short, Vol. II, p. 348; Ellabash, Vol. II, p. 385; Peter Simes, Vol. II, p. 476; Thomas Brown (No. 1), Vol. II, p. 319; Thomas Lyons, Vol. II, p. 460; John A. Swain, Vol. II, p. 350; James Nuatajim, Vol. II, p. 272; Rondtus, Vol. II, p. 242; Amos Mill, Vol. II, p. 285; Simeon Chin-koo-tin, Vol. II, p. 256; Henry Brown, Vol. II, p. 317.

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they are not more shy. The female is always inclined to be sleepy. The male is always on the watch."[1] Capt. J. D. McDonald, owner and commander of the sealing schooner *Adventure*, who hunts from San Francisco to Kadiak, says: "Most of the seals taken by me have been females with pup;" giving as a reason that the female seals are easier to kill than the males.[2] It is evident, therefore, that the female seal, when pregnant, is much more exposed to danger than the male,[3] and this fact is also noted by the Indian hunters along the coast.[4]

Reason pregnant females are taken.

After the 1st of July the cows are nearly all at the rookeries, and having given birth to their young they go into the water in search of food, in order that they may be able to supply their offspring with nourishment.[5] And as has been shown, they often go from one hundred to two hundred miles from the islands on these excursions.[6] It is while absent from the rookeries feeding that they fall a prey to the pelagic seal hunter.[7] Rear-Admiral Sir M. Culme-Seymour,

Destruction of nursing females.

[1] British Blue Book, U. S. No. 3 (1892), C-6635, p. 184. See also James Sloan, Vol. II, p. 477; Isaac Liebes, Vol. II. p. 454.

[2] Vol. II, p. 266.

[3] British Blue Book, U. S. No. 3, 1892, C-6635, p. 184.

[4] Charlie Wank, Vol. II, p. 273; James Unatajim, Vol. II, p. 272; Simeon Chin-koo-tin, Vol. II, p. 256.

[5] *Ante*, p. 115.

[6] *Ante*, p. 116.

[7] Charles Chalall, Vol. II, p. 411; Peter Brown, Vol. II, p. 377-378; John Fyfe, Vol. II, p. 429; Henry Brown, Vol. II, p. 317-318.



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Destruction of nursing females.

in a dispatch to the British Admiralty, dated at Victoria, August 24, 1886, states that three British Columbian sealing schooners had been seized by the United States revenue cruiser *Corwin*, seaward seventy miles from off the land, killing female seals.[1] Edward Shields, of Sooke District, Vancouver Island, a hunter on the British schooner *Carolina*, which was seized in Bering Sea in 1886, states that they were during the whole cruise out of sight of land, adding, "The seals we obtained were chiefly females."[2] The sealers, who have given testimony on this point in behalf of the United States, agree that nearly all the seals taken in Bering Sea are mothers in milk.[3] Moses, a Nitnat Indian hunter from Vancouver Island, in speaking of a voyage he made to Bering Sea, says: "We caught nineteen hundred seals, all of which were captured in the sea close to Unalaska; most all of them were cows in milk; but when we first entered the sea we killed a few cows that had pups in them."[4] Charles Peterson, a sealer with four years' experience, after stating that most all the seals taken in Bering Sea were cows in milk, adds: "I have seen the deck almost flooded

[1] British Blue Book, U. S. No. 2 (1890), C-6131, p. 1.
[2] British Blue Book, U. S. No. 2 (1890), C-6131, p. 8.
[3] William H. Long, Vol. II, p. 458; Henry Mason, Vol. II, p. 465; E. P. Porter, Vol. II, p. 347.
[4] Moses, Vol. II, p. 310.

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with milk while we were skinning the seals.[1]" Richard Dolan, a seal hunter who was in Bering Sea in 1885, says: "I saw the milk flowing on the deck when we skinned them."[2] Capt. L. G. Shepard, of the United States Revenue Marine Service, who seized several vessels in Bering Sea in 1887 while they were engaged in sealing, states that he saw milk flowing from the dead carcasses of seals lying on the decks of vessels a hundred or more miles from the Pribilof Islands.[3] Mr. Robert H. McManus, a British subject and resident of Victoria, British Columbia, made a sealing voyage in 1891 in Bering Sea on the Canadian schooner *Otto* as a newspaper correspondent. During the voyage he kept a journal of events, which he has embodied in his deposition, hereto appended, which contains his views of the matters which took place.[4] In an entry made August 29, he states the total catch of the day was seventeen seals, "greater proportion cows in milk; horrid sight, could not stay the ordeal out till all were flayed."[4] He subsequently adds: "It may be safely asserted that over three-fourths of the catch of forty-eight were cows in milk;

Destruction of nursing females.

[1] Vol. II, p. 345.
[2] Vol. II, p. 419.
[3] Vol. II, p. 189.
[4] Vol. II, p. 337.

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Destruction of nursing females.

this at a distance of two hundred miles from the rookeries."[1] And Mr. Francis R. King-Hall, son of Sir William King-Hall, K. C. B., Admiral in the British Navy, who also was on the *Otto* during this voyage, makes substantially the same statements.[2] That a pup is entirely dependent upon its mother for the first three or four months of its life, and also that a female will not suckle any pup save her own, has already been stated.

Dead pups on the rookeries.

As a result it is evident that if the mother is killed her pup will die of starvation; and of this fact the evidence presented is unquestionable. When sealing vessels began to enter Bering Sea in pursuit of the seal herd (1884–'85) at that same period dead pup seals on the rookeries first drew the attention of the residents of the Pribilof Islands.[3]

No dead pups prior to 1884.

Professor Dall, who visited the rookeries in 1880, says: "There were not in 1880 sufficient dead pups scattered over the rookeries to attract attention, or form a feature on the rookery."[4] Captain Bryant, who was on the islands from 1870 to 1877, says, "A dead pup was rarely seen."[5] Mr. J. H. Moulton, who was

[1] Vol. II, p. 338.
[2] Vol, II, p. 333.
[3] Nicoli Krukoff, Vol. II, p. 132.
[4] Vol. II, p. 23.
[5] Vol. II, p. 8.

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on St. George Island from 1877 to 1881, says: "There were practically no dead pups on the rookeries. I do not think I saw during any one season more than a dozen."[1] Mr. H. G. Otis, Treasury agent on the islands from 1879 to 1881, states that "it was a rare thing to find a dead pup."[2] Mr. H. A. Glidden, the Government agent from 1882 to 1885, says: "During the time I was on the islands I only saw a very few dead pups on the rookeries, but the number in 1884 was slightly more than in former years."[3]

No dead pups prior to 1884.

From this time (1884) forward dead pups on the rookeries increased in numbers annually. Mr. T. F. Morgan says: "From the year 1884 down to the present period when I left St. George Island, there was a marked increase in the number of dead pup seals."[4] Mr. A. P. Loud, assistant Treasury agent on the islands from 1885 to 1889, says that he can not make a statement as to the number of dead pups on the rookeries in 1885, as he was not present that fall; but in 1886 he saw a large number of dead pups lying about, and that these pups were very much emaciated,

Time of appearance of dead pups.

[1] Vol. II, p. 71.
[2] Vol. II, p. 87.
[3] Vol. II, p. 110. See also John Armstrong, Vol. II, p. 2.
[4] Vol. II, p. 64.

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Time of appearance of dead pups.

and had evidently been starved to death. He further states that the number of dead pups in 1887 was much larger than in 1886. In 1888 there was a less number than in 1887 or in 1889, owing, he believes, to a decrease of seals killed in Bering Sea that year; but that in 1889 the increase again showed itself.[1] Dr. W. S. Hereford, already mentioned as the resident physician on the islands from 1880 to 1891, says: "The loss of pup seals on the rookeries up to about 1884 or 1885 was comparatively slight, and was generally attributed to the death of the mother seal from natural causes. Coincident with the increase of hunting seals in the sea, there was an increase in the death rate of pup seals on the rookeries."[2]

Number of dead pups in 1891.

Mr. Stanley Brown, in examining the rookeries in 1891, fixed the number of dead pups at between fifteen and thirty thousand.[3] Captain Coulson, who was on the islands the same year, says: "Thousands of dead and dying pups were scattered over the rookeries."[4] And Colonel Murray fixes the number of dead that year at "not less than thirty thousand."[5] Other witnesses support

[1] Vol. II, p. 39.
[2] Vol. II, p. 32.
[3] Vol. II, p. 19.
[4] Vol. II, p. 415.
[5] Vol. II, p. 74.

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these statements[1] The rookeries, strewn with dead and dying pups, were also in 1891 inspected by the British Bering Sea Commissioners.[2] And Kerrick Artomanoff, the old chief of the St. Paul natives, in speaking of their appearance on the rookeries during the last six years, says: "In my sixty-seven years' residence on the island, I never before saw anything like it."[3]

Number of dead pups in 1891.

At the request of Mr. Stanley Brown,[4] Dr. J. C. S. Akerly, then physician on St. Paul Island, examined a large number of the dead bodies, and after a careful and minute examination, which is fully detailed by him in his deposition,[5] gives it as his opinion "that the great mortality during 1891 amongst the young seals on St. Paul Island, Bering Sea, was caused by the deprivation of mothers' milk." He sums up this opinion with eight reasons why he believes the young seals died of starvation.[6] His opinion as to the cause of their death is shared by many others who had an opportunity to examine the dead and dying pups on the rookeries.[7] The natives on the islands,

Cause of death of pups.

[1] Anton Melovedoff, Vol. II, p. 143; H. H. McIntyre, Vol, II, p. 51; Charles W. Price, Vol. II, p. 521; Aggie Kushin, Vol. II, p. 128; John Fratis, Vol. II, p. 108; H. N. Clark, Vol. II, p. 159.

[2] Milton Barnes, Vol. II, p. 101.

[3] Vol. II, p. 100.

[4] Vol. II, p. 19.

[5] Vol. II, p. 95.

[6] Vol. II, p. 96.

[7] W. H. Williams, Vol. II, p. 94; J. Stanley Brown, Vol. II, p. 19; Charles W. Price, Vol. II p. 521; Aggie Kushin, Vol. II, p. 130; John Fratis, Vol. II, p. 109.

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Cause of death of pups.

who have lived there for many years, testify that although they have eaten seal meat all their lives they never knew of a sick seal and never heard from the old residents of sickness among seals.[1] This great mortality, therefore, was not caused by an epidemic among the animals, for no dead adult seals were seen.[2]

Effects of pelagic sealing.

The injurious and destructive effects of open-sea sealing, as demonstrated above, can be summed up as follows: Between eighty and ninety per cent of the seals taken are females; of these at least seventy-five per cent are either pregnant or nursing; that the destruction of these females causes the death of the unborn pup seals or those on the rookeries dependent on their mothers for nourishment; and, finally, that at least sixty-six per cent of the seals killed by white hunters are never secured. Besides this, the females taken in Bering Sea have certainly in the majority of cases been impregnated,[3] and their death means not only the destruction of the pups on the island, but also of the fetus. Hence, if 10,000 females are killed in one season, this fact means not only the depletion of the herd by at least 17,500 that

[1] Anton Melovedoff, Vol. II, p. 143. See also Daniel Webster, Vol. II, p. 183; Edward Hughes, Vol. II, p. 37.

[2] Aggie Kushin, Vol. II, p. 128; Nicoli Krukoff, Vol. II, p. 133; Karp Buterin, Vol. II, p. 103; John Fratis, Vol. II, p. 107.

[3] *Ante*, p. 115.

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year, but also the reduction of the annual birth-rate by 7,500 each following year for probably fifteen years, besides the added loss of the young born to the female portion of the pups destroyed, which would be an ever-increasing quantity. But disregarding these last two important points, the enormous destruction of seal life can be readily seen if we take the figures supplied by the Canadian Fisheries Report for 1890.[1] In that year there were sold in Victoria alone about 55,000 skins taken by pelagic sealers; allowing that 20,000 of these were secured by Indian hunters and only 35,000 by white hunters, the number of seals actually killed would be at least 125,000; of these 80 per cent, or 100,000, would be females and 75 per cent pregnant or mothers, allowing one-half of these 75,000 pups thus destroyed by the death of the females to be of that sex, the total number of the producing sex killed would be 137,500, and the total loss to the herd of 200,000 seals, for which the sealers show but 55,000 skins. It must be remembered that 55,000 represented only the number of skins sold in Victoria, which is undoubtedly 10,000 short of the actual number secured by both the British and American sealing fleet. Each year also adds to the destructiveness of the fleet, for

Effects of pelagic sealing.

[1] Page 183.



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Effects of pelagic sealing.

the captains in command becoming more and more familiar with the habits, track, and feeding grounds of the migrating herd, are able to reach the various points off the coast at the time when the main body are at these localities, and harass them incessantly on their way from the Farallones to Bering Sea.[1] The effect of pelagic sealing is briefly and truly summarized by Karp Buterin, the native chief of St. Paul Island, in these words: "Schooners kill cows, pups die, and seals are gone."[2]

With such wasteful destruction the Alaskan seal herd must either be soon exterminated, or else a sufficient and full protection given from the pernicious methods employed by open-sea seal hunters.

## PROTECTION AND PRESERVATION.

### OTHER SEAL HERDS.

Destruction.

The indiscriminate slaughter of seals in the waters of the Pacific Ocean and Bering Sea can not fail to produce a result similar to that observed in the southern hemisphere, where the fur-seals have, except at a few localities, become,

[1] Report of Capt. C. L. Hooper to the Treasury Department, dated June 14, 1892, Vol. I, p. 499.

[2] Vol. II, p. 103.

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Destruction.

from a commercial point of view, practically extinct. A full account of the distribution and the destruction of the antartic seal herds is given by Dr. Allen in his article found in the Appendix.[1] Captain Budington, who for over twenty years has sealed about Cape Horn and the islands of the South Atlantic, making his last trip to these regions in the winter of 1891–'92, says: "From hundred of thousands of seals resorting to these islands and coasts the numbers have been reduced to a few hundred, which seek the land in scattered bands and rush to sea on the approach of man."[2] He further adds: "Seals in the antarctic regions are practically extinct, and I have given up the business as being unprofitable."[3] In speaking of the cause of this extermination, he says: "The seals in all these localities have been destroyed by the indiscriminate killing of old and young, male and female. If the seals in these regions had been protected and only a certain number of "dogs" (young males unable to hold their position on the beaches) allowed to be killed, these islands and coasts would be again populous with seal life. The seals would certainly not have decreased and would have

[1] Article by Dr. Allen, Parts I and II, Vol. I, pp. 365, 393.
[2] Vol. II, p. 595. See also Isaac Liebes, Vol. II, p. 515.
[3] Vol. II, p. 595.

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Destruction.

produced an annual supply of skins for all times".[1] James Kiernan, who about 1843 visited on a sealing voyage the east coast of Patagonia and the Falkland Islands, says: "These rookeries have since been destroyed through the constant hunting of seals."[2] Caleb Lindahl, also experienced in sealing in southern latitudes, in speaking of the destruction of seals at the South Shetland Islands, says: "If the seals on the South Shetland Islands had been protected I think they would have been there by the million, because in one year they took three hundred thousand seals from the Shetland Islands."[3] The same hunter also, in telling of a sealing expedition he made in 1891 to the south seas, says: "The seals are nearly all killed off down there, so that we got only about twenty skins. It is no use for vessels to go there sealing any more."[3]

The Russian herd.

The pelagic sealers of the North Pacific have not confined their operations to the eastern side of the Pacific Ocean, but have invaded the Russian waters, and the slaughter has already been carried on to such an extent in that locality that the Commander herd has begun to decrease in the same manner as the Alaskan herd.[4]

[1] Vol. II, p. 595.
[2] Vol. II, p. 450.
[3] Caleb Lindahl, Vol. II, p. 456.
[4] Gustave Niebaum, Vol. II, p. 203.

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British protection of the seal.

The necessity of protection to seal life from unlimited destruction, in order that the species may be preserved, is not only evidenced by the examples above cited, but has been recognized by a number of nations, especially by Great Britain and her colonies. In fact, it may be said that wherever fur-seals breed in territory over which Great Britain has control the species has received particular protection from indiscriminate slaughter. At the Falkland Islands, a British dependency, formerly so productive of the fur seal species, the Government of the Islands in 1881 issued a decree,[1] the preamble of which is as follows: "Whereas the Seal Fisheries of these Islands, which was at one time a source of profit and advantage to the colonists, has been exhausted by indiscriminate and wasteful fishing, and it is desirable to revive and protect this industry by the establishment of a Close Time during which it shall be unlawful to kill or capture seals within the limits of this Colony and its dependencies." The ordinance proceeds to enact stringent regulations prohibiting seal hunting "within the limits of this Colony and its dependencies." Capt. Budington, an experienced navigator and seal hunter in southern

Falkland Islands.

[1] Falkland Islands Seal Fishery Ordinance, Vol. I, p. 435.

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Falkland Islands.

waters, visited that region in January, 1892, and he states, under oath, that the ordinance of 1881 is enforced in the sea surrounding those islands outside the three-mile limit, and that it would be deemed a violation of the law to take seals during the close season between the Falkland Islands and Beauchene Island, twenty-eight miles distant.[1]

New Zealand.

During the past fifteen years a series of laws and orders in council have been enacted for the protection of seals in the Colony of New Zealand, which not only established a close season, but have at times entirely prohibited the taking of seals for a consecutive period of eight years.[2] The New Zealand Seal Fisheries Act of 1878 established a close season for seals extending from October 1 to June 1.[2] Section 4 empowers the Governor, by Order in Council, to extend or vary the close season as to "the whole Colony or only in particular parts thereof." And this provision has been substantially reënacted in all subsequent legislation. The area designated as "the Colony" is taken to mean the area

[1] James W. Budington, Vol. II, p. 593.

[2] New Zealand Act, 1878, Vol. I, p. 437. See also Reports, Department of Marine (1880-1890), Regulations by the Governor of New Zealand in Council, January 10, 1888.

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New Zealand.

specified in the act[1] creating the colony, which defines its boundaries as coincident with parallels 33° and 53° south latitude, and 162° east and 173° west longitude.[2] The Fisheries Act of 1884[3] empowers the Governor in Council "to make, alter, and revoke regulations which shall have force and effect only in waters or places specified therein;" and almost unlimited authority is thus conferred upon the executive to establish close seasons, and to make regulations respecting the purchase or sale of fish, including seals, and punishment for violation of the law and orders. The definition in the act of the term "waters" indicates that it applies to the entire area of the Colony, of which the southeastern corner is over seven hundred miles from the coast of New Zealand, although a few smaller islands intervene. The Amendment Act of 1887,[4] making the penalties more stringent, provides (Sec. 6) that the commander of any public vessel may seize, search, and take any offending vessel

[1] 26 and 27 Vic. c. 23 Sec. 2, Vol. I, p. 436; Extract. . . . "The Government purpose leasing the right to seal within the Colony of New Zealand, which extends within the area comprised between 162° east longitude and 173° west longitude, and between 33° and 53° of south latitude." From "Handbook of the Fishes of New Zealand." Prepared under the instructions of the Commissioner of Trade and Customs, by R. A. A. Sherrin. Auckland, 1886," p. 254.

[2] Map of Colony of New Zealand, Vol. I, p. 437.

[3] New Zealand Act, 1884, Vol. I, p. 437.

[4] New Zealand Act, 1887, Vol. I, p. 440.

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New Zealand.

"within the jurisdiction of the Government of the Colony of New Zealand." The "Handbook of the Fishes of New Zealand," already cited, a book "prepared under the instructions of the Commissioner of Trade and Customs," reviews at some length the seal life and industry of the Colony, and in advocating stringent protection states that "seals are property the State should zealously guard." In pursuance of the foregoing cited laws and regulations the Government of New Zealand has kept a cruiser in service for some years for the purpose of patrolling the waters of the Colony and enforcing the law.[1] It is now proposed to lease the exclusive right to take seals within the limits of the Colony to a company.[2] In the Colony of the Cape of Good Hope sealing is prohibited at the rookeries and in the waters adjacent thereto, except under stringent regulations.[3] The laws and regulations of the British colonies just cited have reference to the fur-seals of the South Seas, similar in their habits to the seal herd of the Pribilof Islands,

Cape of Good Hope.

[1] Reports, Marine Department of New Zealand, 1882, 1883, 1887, 1888.

[2] "Handbook of the Fishes of New Zealand," p. 254.

[3] George Comer, Vol. II, p. 597; William C. B. Stamp, Vol. II, p. 576.

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having fixed habitations on the land, to which they regularly resort.[1] Cape of Good Hope.

But Great Britain and its dependencies do not limit their governmental protection to the fur-seal; it is extended to all varieties of seals, wherever they resort to British territorial waters, and they have thrown about them upon the high seas the guardianship of British statutes. In certain of the waters of the North Atlantic are found the hair-seal, of much less commercial value than the fur-seal, and to whose existence the land is not a necessity, as the young may be, and usually are, born and reared on the ice; and yet these seals are under the special protection of British laws. Canadian statutes prohibit all persons, without prescribing any marine limit, from disturbing or injuring all sedentary seal fisheries during the time of fishing for seals, or from hindering or frightening the shoals of seals as they enter the fishery. They also forbid the use of explosives to kill seals.[2] British protection of hair-seal.

The most important hair-seal region of the world is found on the ice floes to the eastward of Newfoundland, often several hundred miles from the coast.[3] This region has been for many years Newfoundland regulations.

[1] An examination of the "Handbook of the Fishes of New Zealand" (pp. 230–233) will show that the fur-seal frequenting those islands is similar in habits to the Alaskan fur-seal in nearly every particular.

[2] Revised Statutes of Canada, c. 95, Secs. 6 and 7; Vol. I, pp. 441, 454.

[3] Allen, "Monograph of North American Pinnipeds," page 234,



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Newfoundland regulations.

past under the protection of the Newfoundland Colonial Government, which has enforced a close season, not allowing sail vessels to leave port on sealing voyages before March 1, and steam vessels before March 10, and prohibiting seal killing before March 12, under a penalty of from four hundred dollars to two thousand dollars, and has enacted other stringent regulations.[1] But even these laws have not proved sufficiently efficacious, and in April, 1892, a new act "to regulate the prosecution of the seal fisheries" was passed.[2] This act defers the date of leaving port two days ~~later~~, and prohibits the killing of seals at all seasons of the year except between March 14 and April 20, inclusive. It is further made an offense to bring any seal killed out of season into any port of the Colony under a penalty of four thousand dollars, and all steamers are prohibited from proceeding on a second trip to the seal waters in any one year. It will be seen from the depositions of Richard Pike, a master mariner of forty-four years' experience in hair-seal hunting, and of James G. Joy, master mariner of twenty-four years' experience in seal hunting, that the law prohibiting the second sealing trip was enacted because it tended to the extermination of the hair-seals, as at least seventy-five per cent of those

[1] Newfoundland Seal Act, 1879, Vol. I, p. 442.
[2] Newfoundland Seal Act, 1892, Vol. I, p. 444.

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killed on the second trip are females, and many at that time are shot in the water and sink before they can be recovered.[1] Newfoundland regulations.

Next in importance to the Newfoundland hair-seal region is that in the Atlantic Ocean east of Greenland, and known as the Jan Mayen Seal Fishery. This region in the open sea is embraced in the area lying between the parallels of 67° and 75° north latitude and the meridians of 5° east and 17° west longitude from Greenwich. These fisheries were made the subject of legislative regulation, applicable to their own subjects, by the Governments of Great Britain, Sweden and Norway, Russia, Germany, and Holland, by a series of statutes passed by these several countries during the years 1875, 1876, 1877, and 1878.[2] The 3d of April is established as the earliest date each year on which the seals could be legally captured, and penalties are fixed for a violation of the prohibition. Jan Mayen regulations.

It will thus be seen that not only Great Britain and her colonies have found it necessary to protect by legislation the hair-seal of the North Concurrence of nations.

[1] James G. Joy, Vol. II, p. 591; Richard Pike, Vol. II, p. 592.

[2] "The Seal Fishery Act, 1875," 38 Vict., c. 18; British Order in Council of Nov. 28, 1876; Law of Sweden and Norway of May 18, 1876; Ordinance of Norway of Oct. 28, 1876; Ordinance of Sweden of Nov. 30, 1876; Law of Germany of Dec. 4, 1876; Ordinance of Germany of Mar. 29, 1877; Law of the Netherlands of Dec. 31, 1876; Decree of the Netherlands of Feb. 5, 1877; Law of Russia of Dec. 1878: Sec. 223 of Russian Code of Laws, 1886.

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Concurrence of nations.

Atlantic from extermination, but that other nations have united and concurred in the same protection.

White Sea regulations.

Stringent regulations have also been adopted by Russia for the protection of the hair-seals in the Gulf of Mezen, a part of the White Sea, the greater portion of which is beyond the three-mile limit. All sealing is subject to the supervision of public overseers, who have authority to determine the time at which the annual catch is to begin at certain designated places, and to preserve order during the continuance of sealing operations, as to which the law contains certain prohibitions.[1]

Caspian Sea regulations.

The sealeries in that portion of the Caspian Sea which belongs to Russia are under the control of a "Bureau of Fishing and Sealing Industries," which is charged with a general supervision of the sealeries, and the enforcement of the law, which contains regulations for a close season, a license fee, and prohibition of killing or disturbance during the breeding time.[1]

Fur-seal protection by other nations.

Similar enactments protect the fur-seal in other portions of the world, as other nations have recognized how indispensable to the preservation of the fur-seal species is the prohibition of unlicensed and unlimited sealing. The Lobos

[1] Code of Russian Laws, 1886, and map of area, Vol. I, p. 445.

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Island rookeries have for over sixty years been protected by the Government of Uruguay, and the right of sealing leased to a company under certain restrictions;[1] and as a consequence of this governmental protection Lobos Islands have for many years past been the chief source of supply from the southern seas. The Governments of Chile and the Argentine Republic have also recently given protection to the fur-seals resorting to their coasts in the hope of restoring their almost exterminated rookeries.[2] The Japanese Government has taken steps toward the restoration and preservation of the fur-seals at the Kurile Islands,[3] and the history of Russian protection on the Commander Islands and Robben Island is too well known to need further citation.

Fur-seal protection by other nations.

Lobos Islands.

Cape Horn.

Kurile Islands.

Commander and Robben Islands.

## FISHERIES.

The foregoing review of the legislation of various nations shows that they have deemed it necessary to adopt stringent regulations, not only in waters adjacent to, but also at great distances from, their respective land boundaries, in order to protect from extermination the fur and the hair-seal. But it will be interesting, and profit-

[1] Summary of Uruguay laws, in letter of April 2, 1892, by the Custodian of Archives at Montevideo, Vol. I, p. 448; Article by Dr. Allen, Part II, Vol. I, p. 397.

[2] George Comer, Vol. II, p. 597.

[3] Statutes of Japan, Vol. I, p. 449.

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able for the purposes of this Arbitration, to carry the investigation of national legislation a step further and to examine how far Governments have gone in the protection of other forms of animal life in the water, and to what extent extraterritorial jurisdiction is exercised for the preservation of national interests.

Game laws.

All nations and races in all ages have recognized the necessity of affording sufficient protection for the reproduction and continued existence of all animal life useful to the human race. Even the savage recognizes and enforces this humanitarian and economic principle, but it is most fully recognized and enforced among civilized nations. An examination of the legislation of the countries of Europe and America shows that the protection of the Government is everywhere extended to animals *feræ naturæ* during the breeding season, and that especially the mother, when heavy with young or while her offspring is dependent upon her, is under the guardianship of the law. The wild animal on the land and the fish in the sea are both preserved by a close season and stringent rules, having particular reference to the reproduction and undiminished existence of the species. As indicating the character of this legislation, the attention of the Arbitrators is directed to a paper

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in the Appendix, giving a brief review of the game and fishery laws of Great Britain and Canada.[1] Game laws.

Game and fishery laws are usually limited in their effects to the land and territorial waters of the country which enacts them. But instances are many wherein nations have not hesitated to extend the effects of their laws to the waters contiguous to their shores, beyond the ordinary three-mile limit. Citations have already been made of the laws for the protection of seals of quite a number of nations, which, so far as their own subjects are concerned, apply to large areas of the high seas, and it has been shown that Great Britain and Russia extend their exclusive jurisdiction for the protection of seals, frequenting waters contiguous to their shores, far beyond the marine league. But further instances may be cited where nations have exercised extraterritorial jurisdiction on the ocean for the protection of other species of marine life besides the seal. In fact, it may be laid down as a principle, established by international usage, that any nation which has a peculiar interest in the continued existence of any valuable marine product, located in the high seas adjacent to its coasts or Extraterritorial jurisdiction.

[1] Game and Fishery Laws of Great Britain and Canada, Vol. I, p. 450.

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Extraterritorial jurisdiction.

territorial waters, may adopt such measures as are essential to the preservation of the species, without limitation as to the distance from land at which such necessary measures may be enforced.

Irish oyster fisheries.

This principle is well illustrated by two recent statutes enacted by the Parliament of Great Britain. By the British "Sea Fisheries Act" of 1868[1] provision is made for the regulation of oyster dredging on any oyster bed within twenty miles of a straight line drawn from the eastern end of Lambay Island to Carnsore Point on the eastern coast of Ireland. The law states in terms that it is to be enforced "outside of the exclusive fishery limits of the British Isles," and that every order issued in pursuance of it shall be binding not only on British sea-fishing boats, but also "on any other sea-fishing boats in that behalf specified in the order and on the crews of such boats." In other words, jurisdiction may be asserted over foreigners as well as British subjects at a distance of twenty miles from land.

Scotch Herring Fishery Act.

The Scotch Herring Fishery Act of 1889[2] furnishes another illustration in point. That act provides that certain destructive methods of fishing may be prohibited by the fishery board in

[1] Statute of British Parliament, 31 and 32 Vict., c. 45, Sec. 67; map of area defined in the statute, Vol. I, p. 457.

[2] Statute, 52 and 53 Vict. c. 23, and map, Sec. 7, Vol. I, p. 458.

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any part of an area of the open sea, two thousand seven hundred square miles in extent, lying off the northeast coast of Scotland, within a line drawn from Duncansby Head, in Caithness, to Rattray Point, in Aberdeenshire." The act is not confined in its operations to British subjects, but provides that "any person" offending against its provisions shall be liable to a fine and the forfeiture of his fishing apparatus.

Scotch Herring Fishery Act.

The legislation of several of the colonies of Great Britain also abounds in instances of the exercise of extraterritorial jurisdiction upon the high seas for the protection of different species of marine life. The pearl fisheries of Ceylon extend into the open sea for a distance of twenty miles, and they have been the subject of a series of ordinances and regulations from 1811 down to the present time, which for certain purposes define the limit of marine jurisdiction to be twelve miles, and for other purposes a distance which varies from six to twenty miles.[1]

Pearl fisheries of Ceylon.

The pearl fisheries of Queensland and Western Australia were, in the years 1888 and 1889, made the subject of regulation by two statutes enacted by the Federal Council of Australasia.[2] These statutes extended the local regulations of

Pearl fisheries of Australia.

[1] Ordinances of Ceylon, and map, Vol. I, p. 461.
[2] Statutes of Australasia, and map, Vol. I, p. 467.



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Pearl fisheries of Australia.

the two countries mentioned to defined areas of the open sea, of which the most remote points are about two hundred and fifty miles from the coast of Queensland, and about six hundred miles from the coast of Western Australia. These acts are, by their terms, limited in their operation to British subjects, but as Sir George Baden-Powell has pointed out, in a recent address delivered before the Association of the Codification of the Law of Nations,[1] the remoteness of these waters renders it practically impossible for foreign vessels to participate in the pearl fisheries without entering an Australian port, and thereby rendering themselves amenable to Australian law.

French legislation.

The fishery legislation of France also recognizes the same principle. A commission, appointed by the French Government in 1849 to investigate the fisheries of that country and to make recommendations, reported that they deemed it inexpedient to assign any precise limit to territorial waters beyond which the laws recommended should cease to be operative.[2] Accordingly the laws passed in pursuance of this report were so framed as to leave this question open, and the Decree of May 10, 1862, Sec. 2,

[1] Delivered at Liverpool, Aug. 29, 1890; see page 9.

[2] Rapport de la Commission du 25 juin, 1849, pour l'examen d'un projet de loi sur la pêche maritime côtière, p. 25.

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went so far as to provide in terms that under certain circumstances fishing might be prohibited over areas of the sea beyond three miles from shore.[1] Numerous laws have also been enacted by France to protect and regulate the coral fisheries of Algeria, both as to natives and foreigners, and the coral beds so regulated extend at some points as far as seven miles into the sea.[2]

French legislation.

The coral beds surrounding the island of Sardinia and lying off the southwest coast of Sicily have been made the subject of elaborate regulations by the Government of Italy. The Sardinian coral beds are situated at distances from land which vary from three to fifteen miles.[3] The principal coral beds of Sicily are three in number, and are respectively distant from the coast fourteen, twenty-one, and thirty-two miles. At present all coral fishing is prohibited on these banks by Royal Decree, for a designated period,

Italian legislation.

[1] French Decree and map, Vol. I, p. 469.

[2] Map, Vol. I, p. 469. "Les Pêches Maritimes en Algérie et en Tunisie." Rapport au ministre de la marine, par M. M. Bouchon Brandely, Inspecteur général des pêches maritimes, et A. Berthoule, Secrétaire général de la Société national d'acclimatation, membre du Comité consultatif des pêches maritimes.

[3] Map, Vol. I, p. 470. British admiralty chart No. 281. "Il Carallo in Sardegna, Relazione presentata à S. E. il ministro di Agricoltura, Industria e Commercio, dal Professore Parona Corrado, dell' Università di Cagliari." "Annali dell' Industria e del Commercio, 1882."

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Italian legislation.

at the close of which the previous restrictive regulations will be again enforced.[1]

Norwegian legislation.

This principle is also recognized in the legislation of Norway in the statute of 1880 for the protection of whales, during an annual close season, in Varanger Fiörd, an arm of the open sea about thirty-two marine miles in width, lying off the northeast coast of Norway.[2]

Panama legislation.

The Government of Panama, in the Republic of Colombia, has recently enacted a law prohibiting the use of diving machines for the collection of pearls within an area of the sea over sixty marine miles in length, and extending outward about thirty marine miles from the coast.[3]

Mexican legislation.

The Mexican pearl fisheries lying off the coast of Lower California have been made the subject of special exclusive grants to private individuals. Along part of the coast the pearl beds have been divided for this purpose into two belts, of which the inner belt extends seaward a distance of five kilometers (about three miles), and the outer belt is bounded by lines drawn parallel to the coast at distances of five and ten kilometers. It is ob-

[1] Statutes of Italy, and maps, Vol. I, pp. 470, 472. "Relazione del Professore Giovanni Canestrini al Ministro di Agricoltura, Industria e Commercio Sulle ricerche fatte nel Mare di Sciacca intorno ai Banchi Corallini." "Annali dell' Industria e del Commercio, 1882."

[2] Statutes of Norway, Vol. I, p. 482.

[3] Statutes of Panama, and map, Vol. I, p. 484.

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vious that the greater portion of this outside belt lies beyond the three-mile limit.[1] Mexican legislation.

Maps will be found in the Appendix, as cited, showing the extent of marine territory over which jurisdiction is exercised by the different Governments named. Reference may also be made to the British Hovering Acts,[2] the St. Helena Act of 1815,[3] and the Quarantine Act of 1825,[4] as well as various international conventions for the protection and regulation of fisheries on the high seas. Other cases of extraterritorial jurisdiction.

## ALASKAN HERD.

This hasty review of the legislation of near a score of nations clearly establishes the principle announced that any nation, having a peculiar interest in the continued existence of animal life in the high seas adjacent to its coasts or territorial waters, may adopt such measures as are essential to its preservation, without limit as to the distance from land at which such measures may be enforced. It is a remarkable fact, however, in view of the legislation just cited, that the Alaskan seal herd, so valuable to the human Unprotected condition.

[1] Statutes of Mexico, and map, Vol. I, p. 486.

[2] 9 Geo. II, c. 35, Sec. 23, statute repealed in 1825, but partially reenacted as to the limit of four leagues as recently as 1845, 8 and 9 Vict., c. 86, Sec. 2.

[3] 56 Geo. III, c. 23, Sec. 4, Vol. I, p. 495.

[4] 6 Geo. IV, c. 78, Secs. 8, 9, Vol. I, p. 496.

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Unprotected condition.

race, stands almost alone in the animal life of the world in being denied protection during the necessary period of the reproduction of its species. The review of the habits of the Alaskan seal and of the practices of the pelagic hunters has shown that for at least nine months of the year this herd is exposed to the relentless and untiring pursuit of the pelagic hunter, and that during the remaining three months his hand is only stayed by the inclemency of the weather which renders pursuit impossible. And it has been further shown that this pursuit is most active and destructive at the time when the female seal is approaching the season of the delivery of her young, or when she is nursing the pup which is entirely dependent upon the mother's milk for sustenance.

Necessity of its protection.

The necessity of protection of this particular herd is affirmed by numerous witnesses of every degree of experience and knowledge, including leading naturalists of America and of many European nations, those engaged in the sealskin industry, both in the United States, Great Britain, and France, experienced sealers, and many others conversant with seal life and the present condition of the Alaskan herd.

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The British and American Bering Sea Commissioners, although they do not assert in their joint report that protection is necessary, give, as a conclusion reached, the following: "We are in thorough agreement that for industrial as well as for other obvious reasons, it is incumbent upon all nations, and particularly upon those having direct commercial interests in fur-seals, to provide for their proper protection and preservation."[1] The Joint Commission.

The British Government also has recognized the necessity of protecting this seal herd from destruction, in its correspondence with the Government of the United States, and has advocated certain methods of preservation through a close season and prohibition of sealing within certain limits.[2] Lord Salisbury, in 1888, so far recognized the need of protection to the seal herd as to suggest that a close season from April 15 to October 1 be established in the whole of Bering Sea and those portions of the Sea of Okhotsk and of the Pacific Ocean north of north latitude 47°, and that this limitation should be enforced by international agreement between the United British recognition.

[1] Joint Report of British and American Bering Sea Commissioners. *Post*, p. 309.

[2] Sir J. Pauncefote to Mr. Blaine, April, 1890; Marquis of Salisbury to Sir L. West, April 16, 1891; Sir J. Pauncefote to Mr. Wharton, June 11, 1891.

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British recognition.

States, Great Britain, Russia, and other nations interested.[1]

Opinions of naturalists.

Professor Huxley.

Professor T. H. Huxley, in considering this question of the decline of the Alaskan herd and the need of protecting it, says: "That the best course would be to prohibit the taking of fur-seals anywhere except on the Pribilof Islands."[2]

Dr. Sclater,

Dr. Sclater, secretary of the Zoölogical Society of London, says "that in his opinion as a naturalist, unless proper measures are taken to restrict the indiscriminate capture of the fur-seal in the North Pacific he is of the opinion that the extermination of this species will take place in a few years, as it already has done in the case of other species of the same group in other parts of the world."[3]

Dr. Merriam's letter.

Dr. C. Hart Merriam, one of the American Bering Sea Commissioners, sent out a letter to a number of the principal zoölogists and scientists of the world, stating briefly the results of his investigations as to the condition of the Pribilof rookeries and the cause of the decrease; the letter closes with the following conclusions: "It seems to be a fair inference, therefore, that the only way to restore the depleted rookeries to their former condition is to stop taking seals at sea,

[1] Mr. White to Mr. Bayard, April 20, 1888; Marquis of Salisbury to Sir L. West, April 16, 1888.

[2] Vol. I, p. 412.

[3] Vol. I, p. 413.

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and not only in Bering Sea, but in the North Pacific as well."[1] In replying to this communication, Dr. Raphael Blanchard, of France, says: "By reason of the massacres of which it is a victim, this species is advancing rapidly toward its total and final destruction, . . . and there is for our generation an imperious duty to prevent the destruction of the fur-seal, to regulate strictly its capture, in a word, to perpetuate this source of wealth and to bequeath it to our descendants."[2] Dr. Henry H. Giglioli, of Italy, in his reply, says: "It is both as a naturalist and as an old Commissioner of Fisheries, that I beg to say . . . that I most entirely and most emphatically agree with you in the conclusions and recommendations you come to in your report on the present condition of the fur-seal industry in the Bering Sea, with special reference to the causes of decrease and the measures necessary for the restoration and permanent preservation of that industry, which conclusions and recommendations are fully supported and justified by the facts in the case."[3] Professors A. E. Nordenskiold and W. Lilljeborg, of Sweden, uniting in a reply to Dr. Merriam's letter, say: "As to the pelagic sealing it is evident that a systematic

Dr. Merriam's letter.

Dr. Blanchard.

Dr. Giglioli.

Professors Nordenskiold and Lilljeborg.

[1] Vol. I, p. 417.
[2] Vol. I, p. 427.
[3] Letter of Dr. Henry H. Giglioli, Vol. I, p. 425.



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Professors Nordenskiold and Lilljeborg.

hunting of the seals in the open sea on the way to and from or around the rookeries will very soon cause the complete extinction of this valuable, and, from scientific point of view, so extremely interesting and important animal."[1]

Other naturalists.

Besides these declarations above quoted, other scientists, of France, Italy, Sweden, Russia, Germany, Austria, Norway, and Argentine Republic, to whom Dr. Merriam's letter was sent, unite in commending the conclusions set forth and affirm the need of protection to the seal herd.[2]

Dr. Allen.

Dr. Allen shows plainly the need of protecting the Alaskan herd, in a brief summary of the results of pelagic sealing.[3]

Canadian recognition.

In the Canadian Fisheries Report for 1886, already adverted to, Thomas Mowatt, esq., Inspector of Fisheries for British Columbia, in his report, after giving the catch for the year by sealing vessels, and stating the fact that it was composed almost entirely of female seals, adds: "This enormous catch, with the increase which will take place when other vessels fitting up every year are ready will, I am afraid, soon deplete our fur-seal fishery, and it is a great pity

[1] Letter of Professors Nordenskiold and Lilljeborg, Vol. I, p. 429.

[2] Letters of Dr. A. V. Middendorf, Dr. Emil Horub, Dr. R. Collett, Dr. Leopold Van Schranck, and others, Vol. I, pp. 418–433.

[3] Article by Dr. Allen, Part III, Vol. I, p. 410.

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such a valuable industry could not in some way be protected." Canadian recognition.

Mr. Walter E. Martin, head of the firm of C. W. Martin & Sons, already quoted, says "that the preservation of the seal herds found in the North Pacific regions is necessary to the continuance of the fur-seal business, as those herds are the principal sources of supply of sealskins left in the world, and from his general knowledge of the customs of that business deponent feels justified in expressing the opinion that stringent regulations of some kind are necessary in order to prevent those herds from disappearing like herds which formerly existed in large numbers in the South Pacific seas."[1] Opinions of London furriers.

Sir George Curtis Lampson, already mentioned as the senior member of the house of C. M. Lampson & Co., says that he "has no doubt that it is necessary in order to maintain the industry that steps should be taken to preserve the existence of the seal herd in the North Pacific Ocean and Bering Sea from the fate which has overtaken the herds in the south seas."[2] The said firm of Lampson & Co., in a letter to the Earl of Iddesleigh, First Lord of Her Majesty's Treasury, dated at London,

[1] Walter E. Martin, Vol. II, p. 570.
[2] Sir George C. Lampson, Vol. II, p. 566.

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Opinion of London furriers.

November 12, 1886, in relation, among other things, to the preservation of the Alaskan herd, states that "should Great Britain deny the right of the United States Government to protect the (seal) fishery in an effectual manner there can be no doubt that the Alaska fur-seals, which furnish by far the most important part of the world's supply of sealskins, will be exterminated in a very few years, just as in the South Atlantic, the Shetland and Georgia fur-seals, which used to furnish even finer pelts than the Alaskas, have already been."[1] Again, in September, 1890, Lampson & Co. wrote to the Foreign Office that "unless a close season can be arranged immediately the animal will undoubtedly become extinct within a very short time."[2] Mr. C. Hawkins, a British subject, in a letter already mentioned, addressed to the Marquis of Salisbury, states that "this wholesale slaughter of the females will, in a short time, bring about the extermination of the seal in that district if not arrested."[3]

Opinions of French furriers.

M. Léon Révillon, a member of the well known Parisian firm of Révillon frères, which has been engaged in the manufacture of sealskin garments for over twenty years, in speaking for his

[1] British Blue Book, U. S. No. 2 (1890), C-6131, p. 24.
[2] British Blue Book, U. S. No. 1 (1891), C-6253, p. 11.
[3] British Blue Book, U. S. No. 3 (1892), C-6635, p. 5.

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company, says: "We firmly believe that if the slaughter of the Northwest Coast fur-seals is not stopped or regulated, the Alaska fur-seals will disappear entirely, as is the case with the seals of the Shetland Islands."[1] The same belief is also stated by M. Emin Hertz, head of the fur firm of Emin Hertz & Cie., which is located in the city of Paris. He says: "If this pursuit in the open sea continues as in the past two years, the said firm firmly believes that in a short time the seal will exist only as a souvenir and will be completely exterminated."[2]

Opinions of French furriers.

Mr. Elkan Wasserman, of San Francisco, who has been a furrier for thirty years, says: "From my knowledge of the sealing business, I am satisfied that the seals will be entirely exterminated unless protected from the indiscriminate pursuit in the waters that has been going on for the last few years."[3] Mr. C. A. Williams, one of the original members of the Alaska Commercial Company, formerly lessees of the Pribilof Islands, but no longer interested in those rookeries, says that if open-sea sealing continues the seals of Bering Sea will within five years be as extinct as the seals of the South Sea Islands.[4] And Mr.

Opinions of American furriers.

[1] Vol. II, p. 590.
[2] Vol. II, p. 588.
[3] Vol. II, p. 534.
[4] Vol. II, p. 538.

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Opinions of American furriers.

Herman Liebes, already spoken of as being the largest purchaser of the Northwest catch at Victoria, British Columbia, places the time of extermination at three years unless the herd is protected from the depredations of pelagic sealers.[1]

Opinions of pelagic sealers.

Turning now to those still more conversant with the wasteful destruction of life through open-sea sealing, the resulting depletion of the Alaskan herd, and the probable effect of continuing pelagic hunting, the opinions already given are still further sustained. A great number of these men, sealers with more or less experience, unite in declaring the necessity of protecting the herd in order to preserve it from certain extermination in the near future. Alexander McLean was asked the question: "If sealing continues as heretofore, is there any danger of exterminating them [the seals]?" He replied: "If they continue as they have been since I have been in the business, I will give them ten years. After that the sealing business will be about finished."[2] Mr. Morris Moss, vice-president of the Sealers' Association of Victoria, British Columbia, says: "It is very important that if the fur seal is to be preserved, it must be protected from indiscriminate slaughter in the open sea or it will soon be

[1] Vol, II, p. 514.
[2] Vol. II, p. 438.

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exhausted."[1] John Morris, a sealer of experience, already mentioned, says: "With the present increasing fleet of sealing vessels the seal herd will soon become exterminated unless some restrictions are placed upon pelagic sealing."[2] William H. Long, who has been a hunter, a mate, and a captain on sealing vessels, says: "I think if something is not done to protect seals in the North Pacific and Bering Sea they will become exterminated in a very few years."[3] Caleb Lindahl, who has sealed both in arctic and antarctic seas, says: "If they keep on hunting them in the Bering Sea and the North Pacific, in the same way they have done in the last few years, they will exterminate them in the same way [as in the southern seas], because most all the seals killed are females."[4] To these statements might be added many others of those experienced in open-sea sealing.[5]

Opinions of pelagic sealers.

The certainty of extermination of the herd if not protected is also set forth by many of the Indian hunters, whose long experience and careful observation of the condition of the migrating

Opinions of Indian hunters.

[1] Vol. II, p. 342.
[2] Vol. II, p. 340.
[3] Vol. II, p. 458.
[4] Vol. II, p. 456.
[5] Thomas Gibson, Vol. II, p. 432; A. J. Hoffman, Vol. II, p. 447; F. F. Feeney, Vol. II, p. 220; Luther T. Franklin, Vol. II, p. 426; O. Holm, Vol. II, p. 368; Martin Benson, Vol. II, p. 406.

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Opinions of Indian hunters.

herd from year to year make them fully competent to give an opinion of value and weight. Alfred Irving, a Makah Indian hunter, says: "If they keep on killing them with guns there will be none left in a little while.[1] Selwish Johnson, of the same tribe, says: "If hunted with guns they will all soon be destroyed."[2] Gonastut, an Indian belonging to the Yakutat tribe, after stating that seals are becoming very scarce, gives as a reason that too many schooners are hunting them, adding "Seals will soon be no more unless the Great Father stops the schooners from hunting."[3] And a great many more Indians make like statements.[4]

Opinions of other witnesses.

Other witnesses, who are thoroughly familiar with the habits and nature of the Alaskan fur seals, or who have had ample opportunity to examine the constant decrease and compare it with the known facts and figures of pelagic sealing and its increase, give like opinions as to the need of protection if the seals are to be preserved.[5] Mr. Maxwell Cohen says: "After twenty-two years' experience in Alaska in the fur business, I

[1] Vol. II, p. 387.

[2] Vol. II, p. 389.

[3] Vol. II, p. 238.

[4] Peter Brown, Vol. II, p. 378; Thomas Zolnoks, Vol. II, p. 399; Charles Martin, Vol. II, p. 297.

[5] Samuel Falconer, Vol. II, p. 162; M. A. Healy, Vol. II, p. 28; A. P. Loud, Vol. II, p. 39; H. G. Otis, Vol. II, p. 88; Wm. H. Williams, Vol. II, p. 94; Aggie Kushin, Vol. II, p. 130; C. M. Scammon, Vol. II, pp. 475, 476.

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Opinions of other witnesses.

have no hesitation in saying that if the fur-seal species is to be saved from extinction, all pelagic sealing must cease."[1] Dr. H. H. McIntyre, after twenty years of careful study of the habits and condition of the seal herd, necessitated by his position as resident superintendent of the Alaska Commercial Company on the Pribilof Islands, says: "I am fully convinced, from my knowledge of seal matters, that if this indiscriminate and reckless destruction of the Pribilof seal herd continues as it has done in the past six years in Bering Sea and the North Pacific, the seals will be practically exterminated in a very few years, even if the United States Government should not allow any seals to be taken on the Pribilof Islands, for the destruction of females in the water has reached a number that can not be met by the annual increase."[2]

Conclusions.

The facts thus submitted are, that the Alaskan seal herd has decreased to a great extent in the last few years; that the sole cause of such decrease has been the indiscriminate and wasteful slaughter of seals in the open seas, particularly pregnant and nursing females; that if such destruction continues the northern fur-seal will be practically exterminated; and that both from

[1] Vol. II. p. 225.
[2] Vol. II, p. 46.



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Conclusions.

a scientific point of view and from actual experience it is necessary to protect the seal herd from this means of slaughter in order to preserve the species.

Means necessary.

Upon the question what are the restrictions or prohibitions needful to accomplish the desired results, it is only necessary to consider those applicable to open-sea sealing, for it has already been shown that regulations can be enforced upon the Pribilof Islands so that a certain number of young male seals can be taken annually on the islands for an indefinite period without decreasing or impairing the normal condition of the herd, and this is particularly shown by the American Commissioners and various witnesses.[1] As to what restrictions are necessary to be enforced in relation to pelagic sealing, the opinions naturally vary according to the knowledge, prejudice, or conclusions of the individual. These opinions may be placed in two classes, absolute prohibition and limited prohibition. Naturally, the majority of those whose interests would be affected by an absolute prohibition of open-sea sealing in all waters frequented by the Alaskan herd, will be found affirming the need of a

[1] Report of American Bering Sea Commissioners, *post*, p. 352; H. H. McIntyre, Vol. II, p. 45; William H. Williams, vol. II, p. 94; George Wardman, vol. II, p. 179; W. H. Dall, vol. II, p. 24.

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limited prohibition, while those who are unbiased by interest or who desire the preservation of the seal declare that absolute prohibition can only accomplish its preservation.

Means necessary.

Mr. Phillip Lutley Sclater, Ph. D., secretary of the Zoological Society of London, says that, in his opinion as a naturalist, "unless proper measures are taken to restrict the indiscriminate capture of the fur seal in the North Pacific the extermination of this species will take place in a few years, as it has already done in the case of other species of the same group in other parts of the world;" that "it seems to him that the proper way of proceeding would be to stop the killing of females and young of the fur-seal altogether, or as far as possible, and to restrict the killing of the males to a certain number in each year;" and that "the only way he can imagine by which these rules could be carried out is by killing the seals only on the islands at the breeding time (at which time it appears that the young males keep apart from the females and old males), and by preventing altogether, as far as possible, the destruction of the fur-seals at all other times and in other places."[1] Professor Dall, whose opinion must necessarily be con-

Absolute prohibition of pelagic sealing.

[1] P. L. Sclater, Vol. I, p. 413. See also quotation from Prof. T. H. Huxley, *ante*, p. 240.

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Absolute prohibition of pelagic sealing.

sidered as entirely unbiased, unless a scientific interest can be regarded as a bias, says: "Upon the amount of protection depends the safety of the seal herd in the future. If protected only upon the Pribilof Islands, extermination will be rapid; if they are protected upon the islands and in the waters of Bering sea also, the decrease will be slower, but ultimate extinction will probably follow. To preserve them completely it is necessary that they should be protected in all waters which they frequent at all times."[1] Mr. C. A. Williams, whose long experience in the fur business has made him thoroughly competent to speak on this question, and whose interest is no longer affected by the preservation of the seal herd, says that he "regards it as important that the seal herd should be protected * * * in the North Pacific, as otherwise they will be exterminated, even if sealing be prohibited in the Bering Sea."[2] Dr. H. H. McIntyre says: "In my judgment the seals should be protected in Bering Sea and the North Pacific, and that pelagic sealing should be entirely prohibited in said waters."[3] Mr. Alfred Fraser, already mentioned as a British subject, whose interests are entirely with the continuance of the sealskin

[1] Vol. II, p. 24.
[2] Vol. II, p. 538.
[3] Vol. II, p. 46.

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industry in London, says "that, in his judgment, the absolute prohibition of pelagic sealing, *i. e.*, the killing of seals in the open sea, whether in the North Pacific or the Bering Sea, is necessary to the preservation of the seal herds now surviving."[1] Besides the statements given above, many other witnesses express the same opinion.[2]

Absolute prohibition of pelagic sealing.

Those asserting the need of only a limited prohibition are divided in their views as to the means necessary, some advocating a close season, in which all killing of seals should be prohibited, others that the use of firearms in taking seals should be forbidden, others that the seal herd should not be molested in the waters of Bering Sea, and still others who believe that a zone about the islands of from thirty to fifty miles would be sufficient.

Limited prohibition of pelagic sealing.

The first of these propositions is supported by a number of sealers, but the period of time in which pelagic sealing should be prohibited varies. Daniel Claussen advocates a close season from July 1 to the last of October;[3] Arthur Griffin, from April to September 1, inclusive;[4] Joshua

A close season.

[1] Vol. II, p. 557.

[2] W. C. Coulson, Vol. II, p. 416; T. F. Ryan, Vol. II, p. 175; J. H. Moulton, Vol. II, p. 73; W. B. Taylor, Vol. II, p. 177; B. F. Scribner, Vol. II, p. 90; T. F. Morgan, Vol. II, p. 65; Gustave Isaacson, Vol. II, p. 440; J. A. Bradley, Vol. II, p. 227; H. W. McIntyre, Vol. II, p. 138.

[3] Vol. II, p. 412.

[4] Vol. II, p. 326.

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A close season.

Stickland, from May 1 to September 15;[1] Frank Johnson from the 1st of July to the end of the year;[2] G. E. Miner, from January 1 to August 15.[3] James Kiernan says the seals should be protected from February until October,[4] and Isaac M. Lenard, from February to November.[5] Thomas Brown (No. 1.) says that in order to prevent the extermination of seals the hunting of them should be prohibited until after the mother seals give birth to their young;[6] which opinion is also advanced by Capt. Victor Jackobson.[7] William Short says that sealing should be prohibited in the North Pacific before the middle of June.[8] And Charles Peterson says: "The practice of taking seals in the water before they give birth to their young is destructive to seal life and should be prohibited."[9]

A close season impracticable.

A glance at the above opinions of those who have been or are engaged in pelagic sealing is sufficient to show that a close season can not accomplish the preservation of the seal, for, taken

[1] Vol. II, p. 350.
[2] Vol. II, p. 441.
[3] Vol. II, p. 467. See also George Dishow, Vol. II, p. 323.
[4] Vol. II, p. 451.
[5] Vol. II, p. 217.
[6] Vol. II, p. 319.
[7] Vol. II, p. 328.
[8] Vol. II, p. 348.
[9] Vol. II, p. 346.

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collectively, every month in the year is comprised in the statement of one sealer or another, evidently showing that in every month the seal herd needs protection. Dr. George Dawson, one of the British Bering Sea Commissioners, in an article entitled "Note on the Question of Protection of the Fur Seal in the North Pacific," which was inclosed in a communication from Sir Julian Pauncefote to Mr. Blaine, dated March 9, 1890, says: "The circumstance that the female fur-seal becomes pregnant within a few days after the birth of its young, and that the period of gestation is nearly twelve months, with the fact that the skins are at all times fit for market (though for a few weeks, extending from the middle of August to the end of September, during the progress of shedding and renewal of the longer hair, they are of less value), show that there is no natural basis for a close season generally applicable."[1] And Sir George Baden-Powell, the other British Bering Sea Commissioner, in a letter to the London Times, published Saturday, November 30, 1889, opposes a close season for all months excepting July, August, and September, on the ground that "the Canadian sealers commence sealing in December and seal contin-

A close season impracticable.

[1] Sir Julian Pauncefote to Mr. Blaine, March 9, 1890, inclosure No. 4.

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A close season impracticable.

uously from then till August." Professor Huxley also says: "In such a case as this I do not believe that the enforcement of a close time, either in Bering Sea or on the Northwest Coast, would be of any practical utility, unless the fishing is absolutely prohibited."[1]

Prohibition of use of firearms.

The second means of protection, the prohibition of the use of firearms, is naturally advanced by the Indian hunters.[2] It is but necessary to recall the fact that with less than twenty vessels engaged in sealing during the years from 1880 to 1885, when spears were practically the sole weapon used in the chase, the seals ceased to increase.[3] If, then, the present fleet of over a hundred vessels carried only Indian hunters it is evident the seals would still decrease, for the catch of the Indian, like that of the white man, is composed of the same proportion of female seals and is entirely indiscriminate.[4]

Prohibition of pelagic sealing in Bering Sea.

The third proposition is to close Bering Sea from the invasion of sealing vessels.[5] The same suggestion made on the last point stated, that the seals ceased to increase from 1880 to 1885, with

[1] Statement of Prof. T. J. Huxley, Vol. I, p. 412.

[2] Twongkwak, Vol. II, p. 246; King Kooga, Vol. II, p. 240. See also F. R. King-Hall, Vol. II, p. 334.

[3] *Ante*, p. 165.

[4] Michael Wooskoot, Vol. II, p. 275; Robert Kooko, Vol. II, p. 296; Jack Shucky, Vol. II, p. 289; Charlie Tlaksatan, Vol. II, p. 270.

[5] William H. Smith, Vol. II, p. 478.

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Prohibition of pelagic sealing in Bering Sea.

less than twenty vessels in the business, is applicable to this method of protection; for, as has already been stated, the sealing vessels at that time seldom entered Bering Sea, confining their operations almost entirely to the North Pacific,[1] and therefore a large increase in the fleet, even though excluded from that sea, would ultimately cause the practical extinction of the herd. The British Government, through its Minister to the United States, Sir Julian Pauncefote, in April, 1890, submitted proposals for a convention, in relation to the sealing industry in Bering Sea and the Sea of Okhotsk, in which Great Britain, Russia, and the United States should join. In these proposals the area suggested to be closed included not only Bering Sea, but a considerable portion of the Pacific Ocean south of the Alaska Peninsula and the eastern Aleutian Passes.[2] And in the earlier correspondence Great Britain even proposed to extend the legislative protection as far south as the forty-seventh parallel.[3]

Sir George Baden-Powell, one of the British Bering Sea Commissioners, in an article which was published in "The New Review," February,

[1] *Ante*, p. 166.

[2] Letter of Sir J. Pauncefote to Mr. Blaine, dated April —, 1890, inclosure 1.

[3] Mr. White to Mr. Bayard, April 20, 1888; Marquis of Salisbury to Sir L. West, April 16, 1888. See also Sir Julian Pauncefote to Mr. Wharton, June 11, 1891.



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Prohibition of pelagic sealing in Bering Sea.

1891, says: "Effectively to protect the industry one would have to include all the Pacific Ocean and coasts thereof to north of, say, latitude 50 deg."[1] Great Britain has therefore conceded that the seal herd needs protection outside Bering Sea during the greater portion of its migration.

Prohibition of pelagic sealing within a zone.

The fourth and last means of a limited prohibition proposed is to draw an imaginary line about the islands within which open-sea sealing should be prohibited. The distance suggested as a radius for such a zone about the Pribilof Islands varies from twenty-five[2] or thirty[3] to fifty miles.[4]

Courses of sealing vessels.

To show how ineffective such a means of protection would be it is but necessary to examine the charts showing the courses of sealing schooners seized in Bering Sea in 1887, which have been platted, from the original log books of the vessels in the possession of the United States Government, by the Bureau of the United States Coast and Geodetic Survey and which have been

[1] "The Bering Sea Dispute: A Settlement," by Sir George Baden-Powell, Vol. I, p. 589.

[2] Lord Stanley of Preston to Lord Knutsford, Feb. 28, 1892, British Blue Book, U. S. No. 1 (1892) C–6633, No. 5, p. 2.

[3] Henry Poland, Vol. II, p. 572; Sir J. Pauncefote to the Marquis of Salisbury, Feb. 26, 1892, British Blue Book, U. S. No. 1 (1892), C–6633, No. 8, p. 3.

[4] Morris Moss, Vol. II, p. 342.

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certified to by the Chief of that Bureau. An examination of the course of the British schooner *Ada*, of Victoria, British Columbia, will at once prove the inefficacy of a zone as a means of protection, for it is there shown that within a given area the nearest point of which is one hundred and thirty-seven miles from the islands the catch for thirteen days was seven hundred and forty-seven seals, while in a given area nearly one hundred miles nearer the Pribilof Islands the catch for eighteen days was but five hundred and fifty-six; and, further, that at no time was the vessel within forty-five miles of the seal rookeries.[1] The course of the British schooner *Alfred Adams* shows the nearest point to the islands where seals were taken by her in 1887 was about sixty miles south of St. George Island, and that the majority of her catch was made one hundred and twenty-five miles from the islands.[2] The schooner *Ellen* never came within one hundred and sixteen miles of the rookeries on the islands,[3] and the schooner *Annie's* nearest approach to the islands was seventy-seven miles, her usual distance being over one hundred and fifty miles therefrom.[4] Edward Shield, of Sooke

Courses of sealing vessels.

[1] Chart of course of schooner *Ada*, Vol. I, p. 574.
[2] Chart of course of schooner *Alfred Adams*, Vol. I, p. 543.
[3] Chart of course of schooner *Ellen*, Vol. I, p. 525.
[4] Chart of course of schooner *Annie*, Vol. I, p. 531.

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Courses of sealing vessels.

District, Vancouver Island, one of the hunters on board the British schooner *Carolina*, seized by Captain Abbey, United States Revenue Marine, in 1886, says: "During the time while we were cruising about we were in the open sea out of sight of land."[1] Much other testimony of the same nature might be advanced, but it will be sufficient to mention only the declarations of James Douglas Warren as to the places of seizure in the cases of the *W. P. Sayward*, *Grace*, *Anna Beck*, *Dolphin*, *Alfred Adams*, and *Ada*, vessels seized by the United States Government in 1887, the distance given shows how the seals wander many miles from land, for in all cases Mr. Warren states the vessel was engaged in sealing at the distances given: the *W. P. Sayward* about fifty-eight miles from Unalaska, the nearest land;[2] the *Grace* about ninety-two miles from Unalaska, th enearest land;[3] the *Anna Beck* about sixty-six miles from the nearest land;[4] the *Dolphin* about forty-two miles from Unalaska Island, the nearest land;[5] the *Alfred Adams* about sixty-two miles from Unalaska Island, the nearest land,[6] and the *Ada* about fifteen miles

[1] British Blue Book, U. S. No. 2 (1890), C-6131, p. 8.
[2] *Ibid.*, p. 145.
[3] *Ibid.*, p. 148.
[4] *Ibid.*, p. 152.
[5] *Ibid.*, p. 156.
[6] *Ibid.*, p. 160.

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northward from Unalaska Island, which said island was the nearest land."[1] Courses of sealing vessels.

Sir George Baden-Powell, in the article published in the "London Times," already referred to, says: "As a matter of fact the Canadian sealers take very few, if any, seals close to these (the Pribilof) islands."

The American Commissioners in their report, after speaking of the absurdity of such a proposed method of protection, say: "There is almost constant cloudiness and dense fog, and it is difficult for a vessel to know her own location within reasonable limits after having cruised about for a short time. A margin of uncertainty would be nearly as wide as the zone itself. . . . In most cases it would be difficult to prove that the sealer was actually within the forbidden area."[2] Captain Shepard, of the United States Revenue Marine, who seized a number of vessels in 1887 and 1889, while engaged in sealing in Bering Sea, says: "It is my opinion that should pelagic sealing be prohibited in a zone thirty, forty, or fifty miles about the Probilof Islands, it would be utterly useless as a protection to seal life, because female seals go much farther than that Fogs in Bering Sea.

[1] British Blue Book, U. S. No. 2 (1890), C-6131, p. 161. See also William H. Smith, Vol. II, p. 478; Fred Smith, Vol. II, p. 349.

[2] Report of American Bering Sea Commissioners, *post*, p. 376.

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Fogs in Bering Sea.

in search of food, and because fogs are so prevalent about those islands that it would be impossible to enforce any such prohibition."[1] Captain Abbey, also of the United States Revenue Marine, who seized several sealing vessels in 1886 in Bering Sea, says: "Fogs are almost constant in Bering Sea in the summer time. During the fifty-eight days I cruised in those waters fifty-four days were foggy and rainy, the other four days partly clear. On this account it is most difficult to seize vessels in Bering Sea. The reports of the guns of the hunters might often be heard when no vessel could be seen. For fifteen or twenty days at a time I did not see the sun, and never while in Bering Sea did I see a star, the nights being continually overcast and foggy."[2] Captain Bryant, already mentioned as the Government agent on the Pribilof Islands from 1870 to 1877, and who prior to that time had been captain of a whaling vessel which for several years had been in Bering Sea, says: "A zone thirty, forty, or fifty miles about the island in which sealing is prohibited would be of little or no protection, as the females, during the breeding season after their pups are born, wander at intervals over Bering Sea in search of food. But, to suppose an impossibility, even if

[1] Vol. II, p. 189.
[2] Vol. II, p. 186.

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Fogs in Bering Sea.

such a zone could protect seal life, it would be impossible, on account of the atmosphere being so constantly foggy and misty, to prevent vessels from crossing an imaginary line drawn at such a distance from and about the Pribilof Islands.[1] Others also consider this question of a protecting zone and give the same opinion as the witnesses quoted above.[2] Commander Charles J. Turner, of Her Majesty's cruiser *Nymphie*, which was in Bering Sea in 1891, states that "the weather experienced on the whole was very foggy and rainy, and the fogs greatly aided the sealing schooners in escaping observation."[3] And Lord Salisbury, in discussing the possibility of limiting sealing to one side of a line drawn through the sea, says "that if seal hunting be prohibited on one side of a purely imaginary line drawn in the open ocean, while it is permitted on the other side of the line, it will be impossible in many cases to prove unlawful sealing, or to infer it from the possession of skins or fishing tackle."[4] And the soundness of this statement is still more evident when such an imaginary line is almost continually enveloped in fogs and mists.

[1] Vol. II, p. 9.

[2] H. H. McIntyre, Vol. II, p. 46; A. P. Loud, Vol. II, p. 39; George Wardman, Vol. II, p. 179; H. W. McIntyre, Vol. II, p. 138; H. N. Clark, Vol. II, p. 160.

[3] British Blue Book, United States No. 3 (1892), C-6635, p. 115.

[4] Sir Julian Pauncefote to Mr Wharton, June 6, 1891 (Inclosure).

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Absolute prohibition of pelagic sealing necessary.

After a careful consideration of the four methods of limited protection proposed above, it is evident that none of these can preserve the Alaskan seal herd from certain destruction in the near future, no matter how stringently they may be enforced. The result, therefore, of this consideration is, that, if it is deemed necessary or expedient from a practical and commercial point of view to preserve the seal herds of the North Pacific and Bering Sea, pelagic sealing in every form and in all waters must be absolutely prohibited at all times.

## THE SEAL-SKIN INDUSTRY.

### IN THE PAST.

The commercial value of the Alaskan seal herd, which needs the protection already shown in order to preserve it from practical extinction, is evident on an examination of the seal-skin industry as it formerly existed and as it is at the present time.

Sources of supply.

Formerly—that is, prior to the American occupation of Alaska and Bering Sea, the great sources of supply for fur-seal skins were in both the southern and northern hemispheres. Among those located in the antarctic regions, and from

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which hundreds of thousands of skins were taken in the early part of this century were Sandwichland, South Shetland Islands, Desolation Island, Goughs Island, Kerguelen Island, Massafuero Island, San Juan Fernandez Island, the Falkland Islands, Tierra del Fuego, Patagonia, Cape Horn, South Georgia Islands, the Crozets,[1] the Cape of Good Hope, New Zealand, and other localities described by Dr. Allen.[2] Sources of supply.

It has already been shown how completely these antarctic rookeries have been depleted,[3] but an instance of the enormous numbers taken by sealers in a short time, which shows how populous these southern coasts and islands had once been in seal life, is found in the case of the South Shetlands, where three hundred and twenty thousand skins were taken in two years (1821–1823),[4] and also in the case of Massafuero, from which island there were shipped to Canton in seven years over three million fur-seal skins.[4] Besides the antarctic sources of seal skins there were those which may be called subtropical, consisting of the Guadalupe and Galapagos

[1] Emil Teichmann, Vol. II, p. 577; James W. Budington, Vol. II, pp. 593–594; George Fogel, Vol. II, p. 424; C. A. Williams, Vol. II, p. 536; George Comer, Vol. II, p. 596; Alfred Fraser, Vol. II, p. 555.

[2] Article by Dr. Allen, Parts I and II; Vol. I, pp. 375, 394.

[3] *Ante*, p. 218.

[4] C. A. Williams, Vol. II, p. 541.



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Sources of supply.

islands, Lobos Islands,[1] St. Felix and St. Ambrose islands,[2] the depleted condition of all which is well known, except Lobos Island, which, as before shown, has been long protected by the Uruguayan Government.[3] The arctic supply was, as now, the Pribilof Islands, the Commander Islands, Robben Reef, and the Kurile Islands, all these except the last mentioned being directly under the control and management of the Russian American Company.

Markets.

Prior to 1870 all the fur-seal skins save a few thousand were marketed and sold in China, where the skins were plucked,[4] the commercial value being about five dollars in that country and something less in Europe;[1] but the supply being so irregular the market price fluctuated so that a cargo of skins was sometimes sold as low as fifty cents per skin.[5] Russia also received a portion of the supply obtained by the Russian American Company.[6] A few skins, however,

[1] C. A. Williams, Vol. II, p. 542.

[2] Article by Dr. Allen, Parts I and II, Vol. I, pp. 371, 393; Gaffney, Vol. II, p. 430.

[3] Emil Teichmann, Vol. II, p. 578; Alfred Frazer, Vol. II, p. 556; Uruguayan documents, Vol. I, p. 448.

[4] Emil Teichmann, Vol. II, p. 577; C. A. Williams, Vol. II, p. 541; Letter from the Board of Administration of the Russian American Company to General Manager Baranof, dated April 6 (18), 1817, Vol. I, p. 80.

[5] *Ibid*, Vol. II, p. 542.

[6] Letter from Board of Administration of Russian American Company to Captain Rudakof, dated April 22 (May 4), 1853, Vol. I, p. 82.

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were purchased in England by J. M. Oppenheim & Company,[1] and in the fifties New York[2] also received a supply from the Russian American Company, but it was not until the lease of the Pribilof Islands to the Alaska Commercial Company in 1870, and through the united efforts of that Company with C. M. Lampson & Company that the sealskin industry received the impetus which has built it up to its present condition.[3] At the same time the methods of dyeing and dressing the skins were perfected through the same agency, and sealskins made an article of fashion in general use in Europe and America, and became much more valuable as merchandise.[4] Markets.

### IN THE PRESENT.

As a result of these endeavors and the increased prices, London has become practically the sole market in which the skins of the fur-seal are sold, and buyers gather there semiannually from from different countries to purchase the skins,[5] which, to the number of one hundred and fifty thousand or more, are sold at public auction.[6]

[1] Walter E. Martin, Vol. II, p. 567.

[2] Letter to the Board of Administration of the Russian American Company from the chief manager of the Russian American Colonies, dated November 8 (20), 1854, Vol. I, p. 83.

[3] Emil Teichmann, Vol. II, p. 582.

[4] C. A. Williams, Vol. II, p. 546.

[5] *Ibid.*, Vol. II, p. 546; G. C. Lampson, Vol. II, p. 564.

[6] H. S. Bevington, Vol. II, p. 552.

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Sources of supply.

The principal sources of supply for seal skins at the present time are, first, the Pribilof Islands; second, the Commander Islands; third, the Northwest or Victoria catch.[1] A small supply is also received from Lobos Islands, Cape Horn, the Falklands,[2] and Australasia.[3]

Dependence on Alaskan herd.

The tables attached to the affidavit of Mr. Emil Teichmann, of the firm of C. M. Lampson & Company, show that the Pribilof Islands have, since their lease to the Alaska Commercial Company, and until the year 1890, supplied on an average over one-half of the skins sold annually in London; that, including the Northwest catch, the Alaskan herd has produced over sixty per cent of the world's supply, and that the two great herds of the North Pacific and Bering Sea, which are both threatened with extermination by pelagic sealing, are the source of over eighty per cent of the skins annually offered for sale at London. In 1889, the last year in which one hundred thousand seals were taken on the Pribilof Islands, the number of skins derived from these two herds was ninety-four per cent of the whole supply, not twelve thousand skins being obtained from other sources.[4] From the foregoing it is evident that the destruction of the

[1] Emil Teichmann, Vol. II, p. 579.
[2] H. S. Bevington, Vol. II, p. 551.
[3] Emil Teichmann, Vol. II, p. 578.
[4] Emil Teichmann, Vol. II, p. 585.

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Alaskan herd means practically the annihilation of the seal-skin industry of the world. Therefore, the extent and value of this industry, the consequent loss in case pelagic sealing is not prohibited, besides the loss to the United States Government by destruction of the seal herd, are matters for consideration in this connection.

Dependence on Alaskan herd.

## LOSS IF HERD DESTROYED.

Under the present lease of the Pribilof Islands the United States Government derives a revenue on each raw skin taken on the islands of over ten dollars;[1] and under the same conditions which existed prior to the introduction of pelagic sealing, as it is now carried on, 100,000 seals could be annually taken upon the Pribilof Islands, as has been shown, without impairment of the seal herd.[2] The annual revenue from this source to the United States would, therefore, be over $1,000,000. Besides this profit the United States Government received a further revenue from Alaskan seals reshipped to America from England. At least seventy per cent of the Alaska skins are imported into the United States after being dressed and dyed in the city of London.

Loss to United States.

[1] Lease to North American Commercial Company, Vol. I, p. 106.
[2] *Ante*, p. 164.

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Loss to United States.

C. M. Lampson & Company, in a letter to the British Foreign Office dated December 30, 1890, state: "For many years past no less than 75 per cent have been bought for American account and reshipped to the United States after having been manufactured in London."[1] This statement is corroborated by seven of the principal fur merchants in the United States, who place the number of "Alaskas" imported at from 65,000 to 75,000.[2] The value of these skins before paying custom duty to the United States is shown to average for a series of years about $25 per skin.[2] On these importations the Government of the United States received a duty of 20 per cent advalorem, or an annual revenue from duties on dressed and dyed Alaskan skins amounting to the sum of $375,000, which makes the total annuity of the United States Government, derived from the Alaskan seal herd, at least $1,375,000, provided the usual quota of skins are taken by the lessees of the Pribilof Islands. In the United States these imported dressed and dyed skins are remodeled and manufactured into seal-skin articles, for which the people so employed receive on an average $7 a skin, or for the 70,000 skins so

[1] British Blue Book, U. S. No. 1 (1891), C-6253, p. 11.

[2] Statement of American industry by furriers, Vol. II, p. 526.

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imported annually the sum of $490,000.[1] When to this is added the profits to the wholesale and retail furriers and merchants engaged in the sealskin industries in the United States, which, according to the American furriers quoted above, are about $30 a skin, or on the 70,000 skins annually imported $2,100,000, the total amount received each year in the United States from the manufacture and sale of Alaska skins aggregates $2,590,000. The average price per skin for "Alaskas" in the London market for the last ten years, when the lease to the Alaska Commercial Company was in force (1880–1889) and when 100,000 seals were taken annually, was 68*s.* 8*d.*[2] or (allowing 24.3 cents to the shilling) about $16.50. The present lessees, under a normal condition of affairs, might expect a similar price. In procuring the skins they pay the United States $9.62½ on each secured, and the $60,000 rent adds 60 cents more on each skin; allowing $3 per skin for wages of employés, transportation, etc., the cost of a raw Alaska skin delivered in London would be about $13.25, which selling at the average price of $16.50 would make a profit to the lessees of the islands of $3.25 per

Loss to United States.

[1] Statement of American industry by furriers, Vol. II, p. 526.
[2] Tables of prices prepared by Mr. A. Fraser, Vol. II, p. 561.

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Loss to United States.

skin, and on 100,000 skins the profits would be $325,000. The natives who drive and kill the seals on the Pribilof Islands also receive 40 cents for each skin, or for 100,000 the sum of $40,000. Therefore the destruction of the Alaska seal herd would mean an annual loss to the Government and people of the United States of $4,330,000.

Loss to Great Britain.

The sealskin industry in Great Britain, which, as has been shown, is entirely dependent upon the Alaska seal herd for its existence, has alone in the city of London invested capital to the amount of £1,000,000,[1] and employs between two[2] and three thousand[3] persons, many of whom are skilled workmen with families dependent on them,[4] who would be compelled to learn some other trade in case the industry was destroyed. The fur brokers in London up to 1889 received 6 per cent of the price for which they sold the sealskins,[5] which on 100,000 Alaska skins, at $16 per skin, would amount to $96,000. The next expense put upon the skins is dressing and dyeing them, which is about 16*s.* a skin,[5] making in

[1] Emil Teichmann, Vol. II, p. 582; George C. Lampson, Vol. II, p. 565.

[2] Emil Teichmann, Vol. II, p. 582; Walter E. Martin, Vol. II, p. 568; G. C. Lampson, Vol. II, p. 565; George Rice, Vol. II, p. 574; Arthur Hirschel, Vol. II, p. 563.

[3] Henry Poland, Vol. II, p. 571; H. S. Bevington, Vol. II, p. 552.

[4] Henry Poland, Vol. II, p. 571; Walter E. Martin, Vol. II, p. 568; G. C. Lampson, Vol. II, p. 565; George Rice, Vol. II, p. 573.

[5] H. S. Bevington, Vol. II, p. 553.

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all for the 100,000 the sum of $368,000. This makes an annual loss to Great Britain, in case the Alaskan herd is commercially exterminated, of $464,000; but this is only a partial statement of the actual damage sustained, for the deprivation of eight-tenths of the seal-skin supply must necessarily reduce the industry in Great Britain to a condition which will lead capital to abandon it; and a permanent plant valued at £80,000 would become entirely useless if the seal-skin industry were to come to an end.[1]

Loss to Great Britain.

The French Republic will also suffer a serious loss from the destruction of this valuable herd of fur-bearing animals, on which the sealskin industry so largely depends. The Paris firm of Révillon Frères has alone in the last twenty years bought upwards of 400,000 sealskins, the majority of which have been made up into garments by said firm, the sales of which have amounted to about 4,000,000 francs annually for the period of twenty years. This firm employs about three hundred persons, who are skilled laborers, and who would be thrown out of employment by the withdrawal of the supply of skins furnished by the Alaskan herd; and it is safe to say from five to six hundred persons are dependent upon the sealskin industry in France.[2] If the 20,000

Loss to France.

[1] Arthur Hirschel, Vol. II, p. 563.
[2] Leon Révillon, Vol. II, p.590.



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Loss to France.

skins annually purchased by this firm cost $25 per skin in London,[1] the total cost would be about 2,500,000 francs; and the annual loss to France through this firm's business being affected by the destruction of the Alaskan seal herd would be about 1,500,000 francs; as there are other fur companies in France also dealing in sealskins the loss would undoubtedly be much more than the figures given.

Loss to the world.

Simply relying, however, upon the actual loss sustained, as hereinbefore demonstrated, and adding the $3.00 per skin allowed as expenses paid the employés of the lessees of the Pribolof Islands, transportation, etc., amounting on 100,000 skins to $300,000, the total annual loss to the world from the destruction of this great seal herd would amount to over $5,000,000. Besides this a large number of persons employed by furriers and fur houses would be thrown out of employment, and the three hundred natives of the Pribilof Islands would be deprived of their sole means of sustenance, and become a charge upon the United States Government.

Need of regular supply of skins.

It is the further testimony of all those engaged in the sealskin business that in order to maintain the industry it is necessary that the supply

[1] Statement of American furriers, Vol. II, p. 526.

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of skins should be constant and regular,[1] otherwise there is great danger of loss to the buyers or sellers through fluctuation in prices, and the business of buying and selling becomes speculative. That this has been the result upon the market, through pelagic sealing in the last few years, is clearly shown by Mr. H. S. Bevington,[2] and his statement is supported by the American furriers and others engaged in the fur trade.[3] It is therefore evident that even in case open-sea sealing could be carried on without insuring the destruction of the herd, the results would demoralize and practically ruin the sealskin industry, now so firmly established.

Need of reguar supply of skins.

## INVESTMENTS.

Having reviewed the general loss to the world by the destruction of the Alaskan seal herd, it should now be compared with the Canadian industry in the pelagic sealing fleet, which would necessarily be abandoned in case open-sea hunting is prohibited. According to the Canadian Fishery Reports for 1890, the total valuation of the twenty-nine vessels engaged in sealing,

Canadian investment, in 1890.

[1] Walter E. Martin, Vol. II, p. 568; Emil Teichmann, Vol. II, p. 582; G. C. Lampson, Vol. II, p. 566.

[2] Vol. II, p. 553.

[3] Statement made by American furriers. (See affidavits of S. Ullmann, Vol. II, p. 527; Alfred Harris, Vol. II, p. 529; Henry Treadwell, Vol. II, p. 529; and Hugo Jaeckel, Vol. II, p. 531, attached.)

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Canadian investment, in 1890.

inclusive of canoes and boats, was $265,985.[1] By this valuation the value per ton, exclusive of outfit, is $121.54, which is undoubtedly excessive. Mr. T. T. Williams, who made a careful examination into the Canadian sealing industry in 1889, on behalf of the Alaska Commercial Company preparatory to the said Company's bidding for a new lease of the Pribilof Islands in 1890, states that it costs to build these sealing vessels and outfit them in Victoria $80 per ton, and in the United States $100.[2] An examination of the Canadian Fisheries Reports for the years 1887 and 1890 shows that twelve of the twenty-nine vessels engaged in sealing from Victoria in 1890 were so engaged in 1887, and that some of them were very old and of very little value. Thus, the *Mary Taylor* and *Mary Ellen* have both been built thirty-five years; the *Lilly* has seen forty-six years' service; the *Black Diamond* (called the *Catherine* in 1890), *Juniata*, *Wanderer*, *Letitia*, and *Mountain Chief* are all unseaworthy and have been taken out of the coast trade as being unsafe.[3] A. R. Milne, esq., collector of the port of Victoria, reported to the Dominion Government that the total value of the fleet of twenty-four vessels, with an

[1] Canadian Fisheries Report (1890), p. 183.
[2] Vol. II, p. 500.
[3] T. T. Williams, Vol. II, p. 500.

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aggregate tonnage of 1,464 tons, in 1889 was $200,500,[1] or $83.50 per ton, which is $38.04 per ton less than the valuation given in 1890. It is difficult to see how the wear and tear on a vessel can appreciate its value, but such seems to be the case with the Victoria sealing fleet, according to the reports of Canadian officials.

Canadian investment, in 1890.

But admitting the Canadian valuation to be correct, the British capital (£1,000,000) invested in the sealskin industry, which latter must be abandoned if pelagic sealing continues, exceeds the investment of Canada by over $4,600,000; in other words, the Canadian capital invested is less than 6 per cent of the British investment.

Contrast between British and Canadian investments in 1890.

The value of the Victoria fleet of forty-nine vessels and outfit in 1891 is given by the Canadian Fisheries Report for that year as $425,150, which is also excessive.[2] According to the Canadian valuation of 1890 the average value per ton for the fleet, including outfit, is $130.20; in 1891 the same authority gives the valuation per ton for vessels and outfit as $132.73, or $2.53 per ton over and above the inflated valuation of 1890. Levi W. Myers, esq., United States consul at Victoria, had a careful estimate made of the value of the vessels engaged in the sealing business in Victoria, by two experts, both resi-

Canadian investment, in 1891.

[1] T. T. Williams, Vol. II, p. 499–500.

[2] Canadian Fisheries Report (1891) p. LXXXV.

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Canadian investment, in 1891.

dents of Victoria, and one especially, Mr. W. J. Stevens, being recognized as authority on such matters, often having been employed by the Dominion Government in examining and reporting on vessels.[1] According to such estimate the value of the vessels in 1891 was $203,200. Consul Myers also obtained from the custom-house records at Victoria the approximate age of the vessels, which shows that seven of them are "very old," two are "old," and thirty-three have seen over six years of service.[2] In consideration of this last fact stated, it is evident that the Canadian valuation is far above the true figure.

Contrast between British and Canadian investments in 1891.

However, assuming the value of the fleet of 1891 as given in the Canadian reports to be accurate, namely, $425,150, the Canadian capital is even then less than 12 per cent of the British investment in the sealskin industry; and Great Britain, through the necessary abandonment of her permanent plant used in the industry, would lose more in this item alone than the entire Canadian investment.

Employés in Canada and London.

According to the same sources of information, Canada employed in 1890, 678 white men and Indians in seal hunting,[3] and in 1891, 439 Indians

[1] Vol. I, p. 507.
[2] Consul Meyer's Report (No. 156), Vol, I, p. 511.
[3] Canadian Fisheries Report (1890), p. 183.

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and 643 whites.[1] In London, as has been shown, from two to three thousand persons are employed in the sealskin industry; it is safe, therefore, to say that nearly three times as many people are dependent upon the sealskin industry in London alone as are employed in the pelagic seal-hunting business in Canada. The average wages per week paid to those employed in the British industry are about 30*s.*,[2] or £190,000 ($947,700) per annum to the 2,500 employés. According to the Canadian Report for 1890, above cited, the gross receipts derived from the sealskins taken by the Victoria fleet were $492,261, the catch being sold at inflated prices because of the small number of skins obtained on the Pribilof Islands, the average price per skin in 1889, for the Northwest catch, in London, being only 39*s.* 5*d.*[3] ($9.58). It is evident, therefore, that the annual gross receipts of Canada from pelagic sealing are only about half of the sum annually paid out for wages by London houses engaged in the sealskin industry.

Employés in Canada and London.

In comparing the Canadian venture with the United States industry the contrast is even more striking. It has already been shown that the furriers, manufacturers, and merchants of the

Value to Canada and United States.

[1] *Ibid.* (1891), p. LXXXV.
[2] Emil Teichmann, Vol. II, p. 582; W. E. Martin, Vol. II, p. 568.
[3] Alfred Fraser, Vol. II, p. 562.

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Value to Canada and United States.

United States realize annually on Alaskan skins consumed in the United States the sum of $2,100,000; the aggregate amount annually paid as wages to those employed in the American manufactories to be $490,000; the receipts of the Pribilof Islands natives to be $40,000 annually; and the profits of the lessees of said islands, when 100,000 skins are taken, to be $325,000. The gross amount thus received by citizens of the United States each year from the Alaskan catch is about $3,000,000. The value of the Victoria pelagic catch for 1891 has not been published in the Canadian Fisheries Reports, but assuming the value of the Victoria pelagic catch to be $492,261, as given by the Canadian report for 1890, which has been shown to be abnormal, the gross Canadian receipts per annum from the sealing fleet are less than 16½ per cent of the total profits to the citizens of the United States from the Alaskan catch. If the annual receipts to the United States Government be also included, the gross sum received by Canada from her sealskin catch is 11½ per cent of the annual profits to the Government and people of the United States on "Alaska" sealskins.

Employés in Canada and United States.

The number of persons employed in the manufacture of sealskins in the United States is

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3,360,[1] which is over three times as many as were engaged in the Victoria sealing industry in 1891, according to the Canadian officials, and five times as many as were so engaged in 1890. Employés in Canada and United States.

The receipts of France from her sealskin industry has been shown to be over $300,000 (1,500,000 francs), which is at least 66 per cent of the gross receipts of Canada from pelagic sealing in a year when the prices of Northwest skins were abnormal. Under natural conditions, as in 1888 or 1890, the French receipts from the industry would more than equal the gross receipts of Canada from the sealing fleet's catch. The number of men also employed in France is about the same ~~in number~~ as those employed in pelagic sealing in Canada in 1890. Contrast between French and Canadian investments.

The number of persons engaged in the handling and manufacture of sealskins in the United States, England, and France is, therefore, about 6,400, or over nine times as many as are reported to have been engaged in pelagic sealing in 1890 in Canada, and about six and a half times as many as were so engaged in 1891. Employés in Canada and in other countries.

It is very questionable, however, whether there is any real investment in Canada in pelagic sealing. The vessels are all common vessels, the guns common guns, and the boats common Canadian investment questionable.

[1] Statement of furriers, Vol. II, p. 586.



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Canadian investment questionable.

boats, which can all be used in some other industry,[1] excepting, perhaps, the old and unseaworthy vessels.

Pelagic sealing a speculation.

But admitting the validity of the investment, it can be questioned whether those embarking therein as a rule pay the expenses incurred out of the sum realized on the catch. An examination of the table of sealing vessels and their respective catches, as given by the Canadian Fishery Reports, shows that the number of seals taken by a vessel varies to a great extent. Thus in 1889 several vessels took less than three hundred seals each; one schooner, with a crew of twenty-nine men, took but one hundred and sixty-four seals, while another, with a crew of twenty-two men, took over three thousand.[2] In 1890 the same variation may be seen.[3] In 1889 the average selling price of skins in Victoria was $7.65.[4] On the catch of one hundred and sixty-four seals, therefore, the total received would be $1,254.60, of which at least $400 would have to be paid to the hunters, leaving $854.60 to pay the entire expense of the voyage of at least four months. If the men were paid $30 a month on an average, the cost of the

[1] T. T. Williams, Vol. II, p. 500.
[2] Canadian Fisheries Report, 1889, p. 253.
[3] *Ibid.*, 1890, p. 183.
[4] T. T. Williams, Vol. II, p. 499.

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cruise, outside the expense of outfitting, would be at least $3,000. The loss, therefore, to the owner or charterer of the vessel would be certainly $2,000 on his investment. If one thousand seals were taken, it is also evident that there would be a very close margin on the recovery of the money expended, and the investor would probably lose or certainly not receive one per cent on the capital invested.[1] It is, therefore, the possibility of a large catch which leads persons to venture their money in pelagic sealing, and the business is a speculation of the most uncertain character. Those engaged in the industry also find the possibility of a small supply of skins from all sources to be a fertile field for speculation, the price per skin being advanced as the number of skins on the market diminishes. It may be said, therefore, that the interests of the pelagic sealing speculators is to deplete the herd and thereby increase prices, unmindful of the ultimate result, which is sure to be the extermination of the Alaskan fur-seal. This phase of the speculation is referred to in a letter from the British Colonial Office to Sir Charles Tupper, dated June 13, 1891, which reads as follows: "That as the total cessation of sealing in Bering Sea will greatly enhance the

Pelagic sealing a speculation.

Speculating on small supply of skins.

[1] T. T. Williams, Vol. II, p. 501.

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Speculating on small supply of skins.

value of the produce of the coast fishery, Her Majesty's Government do not anticipate that British sealers will suffer to any great extent by exclusion from Bering Sea."[1] This statement also met with the views of Lord Salisbury.[2] The cessation of sealing and the decrease of the seal herd would bring about the same result, an increase in the price of sealskins. It is more profitable, therefore, for those interested in the sealing venture to have prices raised even if the seal herd is depleted, for they will thereby derive larger returns from the investment. Very few of the owners or part owners of the Victoria sealing fleet are dependent upon pelagic sealing for a livelihood, so that it is not particularly to their interest to preserve the herd, their principal object being to get large profits, whatever may be the result.

Occupations of vessel owners.

Consul Myers, in a report to the State Department, gives the occupation of seventy-one owners or part owners of sealing vessels hailing from the port of Victoria. Of these only fourteen may be said to be dependent on sealing, and twelve others who are employed in maritime enterprises. The remainder are composed of individuals engaged in various pursuits. Among the list may

[1] British Blue Book, U. S. No. 3 (1892), C-6635, p. 29.
[2] *Ibid.*, No. 30, p. 16.

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be found several public officials, seven grocers, a druggist, an auctioneer, a farmer, three saloon keepers, a plasterer, an insurance agent, two iron founders, three real estate agents, a carriage manufacturer, a tanner, two women, a machinist, and others of different pursuits.[1] It is evident that the people who undertake this venture are as varied in their occupations as the purchasers of lottery tickets, and the same spirit which induces persons to risk their money in the latter has persuaded them to take their chances in the sealing business.

Occupations of vessel owners.

Under the present state of affairs the increase of the sealing fleet, the decrease of the seal herd, and its certain extinction in a few years if pelagic sealing is continued, the insignificant investment of Canada for a few years compared with the sealskin industry of the world for an indefinite future seems infinitesimal and unworthy of notice in considering, from an economic point of view, the advisability of protecting and preserving the world's chief supply of fur-seal skins. Prohibition of pelagic sealing means the employment of thousands of people in England and the United States for generations, and the investment of millions of capital.

Results of protecting seal herd.

Nonprohibition means the employment of a few hundred persons for four or five years, the

Results if not protected.

[1] Report of U. S. Consul L. W. Myers, April 29, 1892, Vol. I, p. 514.

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Results if not protected.

investment of one or two hundred thousand dollars in a speculative and losing business, and the final destruction of the Alaskan seal herd, a never-ending source of wealth to the world, if properly protected and preserved.

## CLAIM OF THE UNITED STATES FOR DAMAGES.

Article V of renewal of *Modus Vivendi*.

Article V of the Convention of April 18, 1892, for the renewal of the *Modus Vivendi* in Bering Sea, provides that "if the result of the Arbitration shall be to deny the right of British sealers to take seals within the said waters, then compensation shall be made by Great Britain to the United States (for itself, its citizens, and lessees) for this agreement to limit the island catch to seven thousand five hundred a season, upon the basis of the difference between this number and such larger catch as in the opinion of the Arbitrators might have been taken without an undue diminution of the seal herds."

Classification of damages.

Any damages to which the United States may become entitled under this Convention must be by way of compensation, first, to the Government for the loss of revenue sustained through the diminution of the number of seals caught; and, second, to the North American Commercial Company for the loss of profits incurred through the same cause.

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I. *The Claim of the Government.*—By the lease made in 1890, the North American Commercial Company agreed to pay to the Government for the exclusive right to catch seals in the Pribilof Islands an annual rent of $60,000, the legal tax of $2 for each seal caught, and a bonus on each seal of $7.62½. Owing to the fact that the catch during 1891 was so restricted by Treasury Regulations, connected with the *Modus Vivendi* of last year, as to amount to only 13,482 seals instead of the 100,000 seals prescribed by statute, the Secretary of the Treasury agreed on June 27, 1892,[1] to accept from the lessees for the year ending April 1, 1892, in lieu of the above rents and taxes, the following sums, viz: Government claim.

| | |
|---|---|
| Tax on 13,482 seals, at $2 | $26,964.00 |
| Rental $\left(\frac{13,482}{100,000} \times \$60,000\right)$ | 8,089.20 |
| Bonus on 12,251 good skins $\left(\frac{12,251}{100,000} \times \$7.62\frac{1}{2}\right) \times 12,251$ | 11,444.13 |
| Total | 46,497.33 |

It will be observed that in the above computation, the first item, viz, the tax, remains the same as before. The second item, viz, the rental, which in the lease is $60,000, is reduced in the proportion which the actual catch of 13,482 bears to the maximum catch of 100,000. The third,

[1] Letter, Vol. I, p. 521.

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Government claim.

viz, the bonus per sealskin, has been reduced on the same principle.

Government and lessees.

No definite arrangement has as yet been made between the Treasury and the lessees as to the amount to be paid by the latter for their franchises for the current year, but if, as is almost certain, the above-mentioned arrangement will be continued, then the loss sustained by the Government, for which it is entitled to indemnity from the Arbitrators, can be estimated by substituting for the number 13,482 in the above computation, such a number as the Arbitrators shall find might safely have been taken in excess of the 7,500 provided for in the Convention.

Basis of computation of damages to Government.

For example, if it is determined that 40,000 seals might have been taken over and above the 7,500, then the Government will be entitled to an indemnity of $226,000, obtained as follows:

| | |
|---|---|
| Tax on 40,000 seals, at $2 | $80,000 |
| Rental $\left(\frac{40,000}{100,000} \times \$60,000\right)$ | 24,000 |
| Bonus $\left(\frac{40,000}{100,000} \times \$7.62\frac{1}{2}\right) \times 40,000$ | 122,000 |
| Total | 226,000 |

The Government is entitled to damages in this amount because this sum represents the excess which it would receive from the lessees if the catch, instead of being limited to 7,500 were limited to the number of seals which could be

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taken without an undue diminution of the seal herd, provided the Arbitrators found that number to be 47,500. If they actually determine upon a different number, then the result given above, by way of illustration, must be increased or diminished accordingly

Basis of computation of damages to Government.

II. *The Claim of the Lessees.*—Under the Convention of April 18, 1892, the North American Commercial Company are entitled, as the lessees of the Government, to such an indemnity as shall compensate them for the loss of profits incurred through the forced diminution in the catch of seals. When the Arbitrators have determined the number of seals which might safely have been taken during the present season over and above the 7,500 allowed by the Convention, it will be for them to determine next the amount of profit which the lessees would probably have derived from this increased catch over and above that which will be actually realized from the catch of 7,500 prescribed by the Convention. The balance of profits so obtained will constitute the sum to which the lessees are entitled as an indemnity under the section of the Convention above cited.

The lessees' claim.

In determining the amount of profit obtained from each seal, some information may be derived

Basis of computation of lessees' damages.



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Basis of computation of lessees' damages.

from a claim for damages which the lessees have filed in the United States Treasury Department, for the years 1890 and 1891, a copy of which is found in the Appendix.[1] It may be added that this claim was adjusted on June 27, 1892,[2] by the remission by the Treasury Department, as stated above, of the greater part of the rental and bonus due for the year 1891 under the lease. As the high prices for sealskins in the London market in 1890 and 1891 still continue, the estimate of profits in the above-mentioned claim would probably be as correct at the present time as in the years for which they were made.[3]

Determination of possible catch.

The Arbitrators will derive aid in determining how large a catch might have safely been made during the present season by reference to the following affidavits, viz, those on pages 73, 93, and 111, in Vol. II of Appendix.

Opinion of Sir George Baden-Powell.

It is important to observe also the language of Sir George Baden-Powell, one of the Commissioners sent by Great Britain in 1891 to examine into the condition of the seal industry. In his dispatch of March 9, 1892, to Lord Salisbury, he said: "With reference to the *modus*

[1] North American Commercial Company to the Secretary of the Treasury, April 12, 1892, Vol. I, p 520.

[2] The Secretary of the Treasury to North American Commercial Company, June, 27, 1892, Vol. I, p. 521

[3] The price of a sealskin in London in 1890 rose as high as 146*s*., and in 1891 as high as 125*s*. See Alfred Fraser, Vol. II, p. 561.

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*vivendi*, I am of the opinion that the taking of one season's limited crop can not injure the seal herd, but although not necessary the renewal of last year's prohibition and the 7,500 limitation would be beneficial." He then suggests the arrangement afterwards adopted, viz, that 7,500 "instead of 30,000" be taken on the islands, evidently employing the latter number, viz, 30,000, to designate the quantity of seals which might safely be taken by the United States, which is the same number as that suggested by Sir Julian Pauncefote in his letter to Mr. Blaine of February 29, 1892.[1] In view of these circumstances, it is submitted that 30,000 seals is the minimum number which the Arbitrators can reasonably assign as a safe catch during the present season.

Opinion of Sir George Baden-Powell.

[1] British Blue Book, U. S. No. 3 (1892), C-6635, p. 155.

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# CONCLUSION.



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# CONCLUSION.

The United States, upon the evidence herewith submitted and referred to, claim that the following propositions of fact have been fully established:

Characteristics of the Alaskan herd.

First. That the Alaskan fur-seal, begotten, born, and reared on the Pribilof Islands, within the territory of the United States, is essentially a land animal, which resorts to the water only for food and to avoid the rigor of winter, and can not propagate its species or live except in a fixed home upon land of a peculiar and unusual formation, suitable climate and surroundings, a residence of several months on shore being necessary for propagation; that it is domestic in its habits and readily controlled by man while on the land; that it is an animal of great value to the United States and to mankind, is the principal source from which the world's supply of fur-seal skins is derived, and is the basis of an industry and commerce very important to the United States and to Great Britain; that the only home of the Alaskan seal herd is on the Pribilof Islands; that it resorts to no other land;



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Characteristics of the Alaskan herd.

that its course when absent from these islands is uniform and confined principally to waters adjacent to the coast of the United States; that it never mingles with any other herd, and if driven from these islands would probably perish; that at all times, when in the water, the identity of each individual can be established with certainty, and that at all times, whether during its short excursions from the islands in search of food or its longer winter migration, it has a fixed intention, or instinct, which induces it to return thereto.

Increase.

Second. That under the judicious legislation and management of the United States, this seal herd increased in numbers and in value; that the present existence of the herd is due wholly to the care and protection exercised by the United States and by Russia, the former owner of these

Decrease.

islands; but that the killing of seals in the water, which is necessarily indiscriminate and wasteful, and whereby mostly female seals are taken while pregnant or nursing, has so reduced the birth-rate that this herd is now rapidly decreasing in numbers; that this decrease began with the increase of such pelagic sealing, and that the extermination of this seal herd will certainly take place in the near future, as it already has with other herds, unless such slaughter be discontinued.

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Pelagic sealing.

Third. That pelagic sealing is an illegitimate, improper, and wasteful method of killing, is barbarous and inhuman in its immense destruction of the pregnant and nursing female, and of the helpless young thereby left to perish; that it is wholly destructive of the seal property and of the industries and commerce founded upon it; and that the only way in which these can be preserved to the world and to the governments to which they belong is by prohibiting pelagic sealing in the waters frequented by the herd.

Russian control in Bering Sea.

Fourth. That prior to the treaty of 1825 between Great Britain and Russia, and from a date as early as 1799, down to the cession to the United States in 1867, Russia prohibited the killing of seals in any of the waters of Bering Sea, and exercised such control therein as was necessary to enforce such prohibition.

Bering Sea not Pacific Ocean.

Fifth. That Bering Sea was not included in the phrase "Pacific Ocean" as used in the treaty of 1825, and that said treaty recognized the rightfulness of the control exercised by Russia in Bering Sea for the protection of the seals.

United States control.

Sixth. That all the rights of Russia as to the protection of the Alaskan seal herd passed unimpaired to the United States by the treaty of 1867, and that since the cession, the United States have regulated by law and by govern-



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United States control.

mental supervision the killing of seals upon the Pribilof Islands, have prohibited such killing in any of the waters of Bering Sea within the limits of the cession, and up to the present time have insisted upon their right to enforce such prohibition, but, moved by apprehensions of a disturbance of the peace between themselves and Great Britain by the opposition of the latter, they ceased to some extent to enforce it.

Acquiescence of Great Britain.

Seventh. That Great Britain acquiesced in the exercise of this right by Russia in Bering Sea and in the continued exercise of the same right by the United States up to the year 1886.

Right of control unquestioned.

Eighth. That this right and the necessity and duty of such prohibition have never been questioned, until the excessive slaughter of these animals, now complained of, was commenced by individual adventurers about the year 1885.

Investments contrasted.

Ninth. That the investment of these adventurers in pelagic sealing is speculative, generally unprofitable, and, when compared with the sealskin industry of Great Britain, France, and the United States, which is dependent upon this seal herd, very insignificant; and that the profits, if any, resulting from pelagic sealing are out of all proportion to the destruction that it produces.

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Questions for Tribunal.

Upon the foregoing propositions, if they shall be found to be established, the material questions for the determination of this high Tribunal would appear to be:

Must United States submit to destruction of herd?

First. Whether individuals, not subjects of the United States, have a right, as against that Government and to which it must submit, to engage in the devastation complained of, which it forbids to its own citizens, and which must result in the speedy destruction of the entire property, industry, and interests involved in the preservation of this seal herd.

Should not international regulations be made?

Second. If any such right can be discovered, which the United States confidently deny, whether the United States and Great Britain ought not in justice to each other, in sound policy, for the common interest of mankind, and in the exercise of the humanity which all civilized nations accord to wild creatures, harmless and valuable, to enter into such reasonable arrangement by concurrent regulations or convention, in which the participation of other Governments may be properly invited, to prevent the extermination of this seal herd, and to preserve it for themselves and for the benefit of the world.

Claim of United States.

Upon the first of the questions thus stated the United States Government will claim:

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Property in and right to protect.

First. That, in view of the facts and circumstances established by the evidence, it has such a property in the Alaskan seal herd as the natural product of its soil, made chiefly available by its protection and expenditure, highly valuable to its people and a considerable source of revenue, as entitles it to preserve the herd from destruction, in the manner complained of, by an employment of such reasonable force as may be necessary.

Such interest as justifies protection.

Second. That, irrespective of the distinct right of property in this seal herd, the United States Government has for itself, and for for its people, an interest, an industry, and a commerce derived from the legitimate and proper use of the produce of the seal herd on its territory, which it is entitled, upon all principles applicable to the case, to protect against wanton destruction by individuals for the sake of the small and casual profits in that way to be gained; and that no part of the high sea is, or ought to be, open to individuals for the purpose of accomplishing the destruction of national interests of such a character and importance.

As trustee, right and duty to protect.

Third. That the United States, possessing, as they alone possess, the power of preserving and cherishing this valuable interest, are in a most just sense the trustee thereof for the benefit of

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mankind and should be permitted to discharge their trust without hindrance.

As trustee, right and duty to protect.

In respect to the second question heretofore stated, it will be claimed by the United States, that the extermination of this seal herd can only be prevented by the practical prohibition of pelagic sealing in all the waters to which it resorts.

Pelagic sealing must be prohibited.

The United States Government defers argument in support of the propositions above announced until a later stage of these proceedings.

Argument deferred.

In respect to the jurisdiction conferred by the treaty, it conceives it to be within the province of this high Tribunal to sanction by its decision any course of executive conduct in respect to the subject in dispute, which either nation would, in the judgment of this Tribunal, be deemed justified in adopting, under the circumstances of the case; or to prescribe for the high contracting parties any agreement or regulations in respect to it, which in equity, justice, humanity, and enlightened policy the case appears to require.

Tribunal may sanction conduct of United States, or prescribe regulations.

In conclusion the United States invoke the judgment of this high Tribunal to the effect:

Prayer for decision.

First. That prior and up to the time of the cession of Alaska to the United States Russia

Russia exercised exclusive right in Bering Sea.

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Russia exercised exclusive right in Bering Sea.

asserted and exercised an exclusive right to the seal fisheries in the waters of Bering Sea, and also asserted and exercised throughout that sea the right to prevent by the employment, when necessary, of reasonable force any invasion of such exclusive right.

Great Britain assented.

That Great Britain, not having at any time resisted or objected to such assertions of exclusive right, or to such exercise of power, is to be deemed as having recognized and assented to the same.

Bering Sea not "Pacific Ocean."

That the body of water now known as Bering Sea was not included in the phrase "Pacific Ocean," as used in the treaty of 1825 between Great Britain and Russia, and that after said treaty, and down to the time of the cession to the United States, Russia continued to assert the same exclusive rights and to exercise the same exclusive power and authority as above mentioned.

Rights of Russia passed to United States.

That all the rights of Russia in respect to the seal fisheries in Bering Sea east of the water boundary established by the treaty of March 30, 1867, between that nation and the United States, and all the power and authority possessed and asserted by Russia to protect said rights passed unimpaired to the United States under the treaty last mentioned.

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That the United States have such a property and interest in the Alaskan seal herd as to justify the employment by that nation, upon the high seas, of such means as are reasonably necessary to prevent the destruction of such herd, and to secure the possession and benefit of the same to the United States; and that all the acts and proceedings of the United States done and had for the purpose of protecting such property and interest were justifiable and stand justified; and that compensation should, in pursuance of Article V of the Convention of April 18, 1892, be made to the United States by Great Britain by the payment by the latter of the aggregate sum hereinbefore stated as the amount of the losses of the United States, or such other sum as may be deemed by this high Tribunal to be just; or,

United States have property in and right to protect herd.

Damages.

Second. That should it be considered that the United States have not the full property or property interest asserted by them, it be then declared and decreed to be the international duty of Great Britain to concur with the United States in the adoption and enforcement against the citizens of either nation of such regulations, to be designed and prescribed by this high Tribunal, as will effectually prohibit and prevent the capture, anywhere upon the high seas, of any seals belonging to the said herd.

Or Great Britain and United States should concur in regulations.

John W. Foster.

Agent of the United States.

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# REPORTS OF
# BERING SEA COMMISSION.



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## BERING SEA COMMISSION.

### JOINT REPORT.

An agreement having been entered into between the Governments of the United States and Great Britain to the effect that—

"Each Government shall appoint two Commissioners to investigate conjointly with the Commissioners of the other Government all the facts having relation to seal life in Bering Sea, and the measures necessary for its proper protection and preservation. Provisions of treaty.

"The four Commissioners shall, so far as they may be able to agree, make a joint report to each of the two Governments, and they shall also report, either jointly or severally, to each Government on any points upon which they may be unable to agree.

"These reports shall not be made public until they shall be submitted to the Arbitrators, or it shall appear that the contingency of their being used by the Arbitrators can not arise."



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Report.

And we, in accordance with the above agreement, having been duly commissioned by our respective Governments and having communicated to each other our respective powers, found in good and due form, have agreed to the following report:

Sources of information.

1. The joint investigation has been carried out by us, and we have utilized all sources of information available.

2. The several breeding places on the Pribilof Islands have been examined, and the general management and method for taking the seals upon the islands have been investigated.

3. In regard to the distribution and habits of the fur-seal when seen at sea, information based on the observations recorded by the cruisers of the United States and Great Britain, engaged in carrying out the *modus vivendi* of 1891, has been exchanged for the purpose of enabling general conclusions to be arrived at on these points.

Meetings of Commission.

4. Meetings of the Joint Commission were held in Washington beginning on Monday, February 8, 1892, and continuing until Friday, March 4, 1892.

As a result of these meetings we find ourselves in accord on the following propositions:

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Duty to protect seal herd.

5. We are in thorough agreement that for industrial as well as for other obvious reasons it is incumbent upon all nations, and particularly upon those having direct commercial interests in fur-seals, to provide for their proper protection and preservation.

Conclusions reached.

6. Our joint and several investigations have led us to certain conclusions, in the first place, in regard to the facts of seal life, including both the existing conditions and their causes; and in the second place, in regard to such remedies as may be necessary to secure the fur-seal against depletion or commercial extermination.

Decrease of seal herd.

7. We find that since the Alaska purchase a marked diminution in the number of seals on and habitually resorting to the Pribilof Islands has taken place; that it has been cumulative in effect, and that it is the result of excessive killing by man.

Further joint report impossible.

8. Finding that considerable difference of opinion exists on certain fundamental propositions, which renders it impossible, in a satisfactory manner, to express our views in a joint report, we have agreed that we can most conveniently state our respective conclusions on these matters in the "several reports" which it is provided may be submitted to our respective Governments.

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Further joint report impossible.

Signed in duplicate at the city of Washington, this 4th day of March, 1892.

THOMAS CORWIN MENDENHALL.
CLINTON HART MERRIAM.
GEORGE SMYTH BADEN-POWELL.
GEORGE MERCER DAWSON.
JOSEPH STANLEY BROWN,
ASHLEY ANTHONY FROUDE,
*Joint Secretaries.*

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# REPORT OF THE UNITED STATES BERING SEA COMMISSIONERS.

The HONORABLE SECRETARY OF STATE:

SIR: In your letter of July 10, 1891, received by us in San Francisco on the 16th, after referring to the diplomatic controversy pending between the United States and Great Britain in respect to the killing of fur-seals by British subjects and vessels, to the causes which led up to this controversy, and to some of the propositions which had at that date been mutually agreed upon, you inform us that the President has been pleased to appoint us to proceed to the Pribilof Islands and to make certain investigations of the facts relative to seal life with a view to ascertaining what permanent measures are necessary for the preservation of the fur-seal in Bering Sea and the North Pacific Ocean. Appointment.

You further inform us that in accordance with the provisions of the fourth clause of the *modus vivendi* agreed upon at Washington on the 15th of June, 1891, the Queen had appointed Sir George Baden-Powell, M.P., and Professor Daw- Appointment of British Commissioners.



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Appointment of British Commissioners.

son[1] to visit the Pribilof Islands for the same purpose and as representing the British Government.

Object of Commission.

After explaining the use to which this information may in the end be put, namely, that it may be laid before arbitrators who would probably be selected to consider and adjust the differences between the two Governments, you add that the President proposed, in reference to the appointment of a Joint Commission, the agreement for which is to be made contemporaneously with the terms of arbitration, the following terms of agreement:

Provisions of agreement.

"Each Government shall appoint two Commissioners to investigate conjointly with the Commissioners of the other Government all the facts having relation to seal life in Bering Sea and the measures necessary for its proper protection and preservation. The four Commissioners shall, so far as they may be able to agree, make a joint report to each of the two Governments, and they shall also report, either jointly or severally, to each Government on any points upon which they may be unable to agree. These reports shall not be made public until they shall be submitted to the Arbitrators or it shall appear that the contingency of their being used by the Arbitrators can not arise."

[1] Dr. George M. Dawson, Asst. Director, Geological Survey of Canada.

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Conduct of investigation.

And further, that while it was desirable that our investigation should, even before the conclusion of a formal agreement as to the duties and functions of a Joint Commission, be made concurrently with those of the British agents, yet until the agreement for the Commission shall have been concluded we were not authorized to discuss with them the subject of a joint report or to make any interchange of views on the subject of permanent regulations for the preservation of the seal.

Proceed to Bering Sea.

In accordance with these instructions, we at once proceeded to Bering Sea on the Fish Commission steamer *Albatross*, Lieutenant-Commander Tanner, which had been placed at our disposal for the purpose.

Joint investigations.

We met the British Commissioners first at Unalaska, and afterwards at the Pribilof Islands. Several of the principal rookeries were visited in their company and our observations were made under similar circumstances and conditions.

Sources of information.

In addition to noting such facts as were clearly established by the physical aspect of the rookeries themselves we sought information and obtained much of value from those who have resided long upon the islands, including both Aleuts and whites, all engaged exclusively in the sealing industry. At San Francisco and at Unalaska on our way to the Pribilof Islands,



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Sources of information.

and at Port Townsend, Tacoma, and elsewhere on our return, we availed ourselves of the testimony of any person whose connection with this industry was such as to render his statements of real value.

Return.

We returned to Washington before the 1st of October and were ready at any time after that to take up the discussion of the subject with the representatives of Her Majesty's Government.

Formal appointment.

The formal agreement to the creation of a Joint Commission had not been entered into, however, and it was not until the 4th of February, 1892, that we were formally designated as Commissioners on the part of the Government of the United States.

Arrangement as to meetings of Joint Commission.

We immediately called upon Sir George Baden-Powell and Dr. George M. Dawson, who had been similarly designated by the British Government, and who had come to Washington for the Conference, informing them of our readiness to begin the joint consideration and discussion of the subject at such a time as might suit their convenience. We also stated that as it was our understanding that the official existence of the Joint Commission depended upon the mutual agreement of the two Governments to the articles of arbitration, and as the articles had not yet been signed, only an informal conference

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could be entered upon. It was believed, however, that quite as rapid progress could be made in this way as in any other. To this proposition the Commissioners on the part of Great Britain offered no objection at the time, but on the following day they informed us that they were unable to enter into a conference which was informal in its nature.

Arrangement as to meetings of Joint Commission.

Desiring to remove every obstacle in the way of the immediate consideration of this subject, the question of the formality of the Conference was waived on our side and the formal meetings of the Commissioners in Joint Conference began on the afternoon of February 11, at the Department of State.

Meetings of Joint Commission.

Mr. Joseph Stanley-Brown was selected as the secretary of the Joint Commission on the part of the United States, and Mr. Ashley Froude on the part of Great Britain. In determining the nature of the Conference it was agreed that in order to allow of the freest possible discussion and presentation of views, no formal record of the proceedings should be kept and that none but the four members of the Commission should be present during its deliberations. In further attempt to remove all restrictions upon the fullest expression of opinions during the Conference, it was agreed that in our several reports no refer-

Meetings held without formal records.

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Meetings held without formal records.

ence to persons, as related to views or opinions expressed by members of the Commission during the Conference, should be made.

Meetings continued.

Meetings of the Joint Commission were held almost daily from the 11th of February until the 4th of March, on which day the joint report was signed and the Conference adjourned *sine die*.

Disagreement.

Early in the progress of the Conference it became evident that there were wide differences of opinion, not only as to conclusions, but also as to facts. It seems proper here to refer briefly to the attitude of the Commissioners on the part of the United States or to the standpoint from which they endeavored to consider the questions involved.

Article IX of treaty.

The instructions under which we acted are contained in Article IX of the Arbitration Convention, and, as far as relates to the nature of the inquiry, are as follows:

"Each Government shall appoint two Commissioners to investigate conjointly with the Commissioners of the other Government all the facts having relation to seal life in Bering Sea, and the measures necessary for its proper protection and preservation."

Application of Article IX.

This sentence appears to be simple in its character and entirely clear as to its meaning. The measures to be recommended were such as in

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Application of Article IX.

our judgment were necessary and sufficient to secure the proper protection and preservation of seal life. With questions of international rights, treaty provisions, commercial interests, or political relations we had nothing to do. It was our opinion that the considerations of the Joint Commission ought to have been restricted to this phase of the question, so clearly put forth in the agreement under which the Commission was organized, and so evidently the original intent of both Governments when the investigation was in contemplation.

Result of such application.

Had the preservation and perpetuation of seal life alone been considered, as was urged by us, there is little doubt that the joint report would have been of a much more satisfactory nature, and that it would have included much more than a mere reiteration of the now universally admitted fact that the number of seals on and frequenting the Pribilof Islands is now less than in former years, and that the hand of man is responsible for this diminution.

Article IX interpreted differently by British Commissioners.

That our own view of the nature of the task before us was not shared by our colleagues representing the other side was soon manifest, and it became clear that no sort of an agreement sufficiently comprehensive to be worthy of consideration and at the same time definite enough

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Article IX interpreted differently by British Commissioners.

to allow its consequences to be thought out, could be reached by the Joint Commission unless we were willing to surrender absolutely our opinions as to the effect of pelagic sealing on the life of the seal herd, which opinions were founded upon a careful and impartial study of the whole question, involving the results of our own observations and those of many others.

Disagreement as to application.

Under such circumstances the only course open to us was to decline to accede to any proposition which failed to offer a reasonable chance for the preservation and protection of seal life, or which, although apparently looking in the right direction, was, by reason of the vagueness and ambiguity of its terms, incapable of definite interpretation and generally uncertain as to meaning. In obedience to the requirements of the Arbitration Convention that "the four Commissioners shall, so far as they may be able to agree, make a joint report to each of the two Governments," the final output of the Joint Commission assumed the form of the joint report submitted on March 4, it being found impossible in the end for the Commissioners to agree upon more than a single general proposition relating to the decadence of seal life on the Pribilof Islands. It therefore becomes necessary, in accordance with the further provision of said

Report of Joint Commission.

Necessity of a separate report.

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Convention, for us to submit in this, our separate report, a tolerably full discussion of the whole question, as we view it from the standpoint referred to above as being the only method of treatment which insures entire independence of thought or permits a logical interpretation of the facts. Necessity of a separate report.

In order that this discussion may be more readily understood it is thought desirable to preface it by a brief account of the natural history of the fur-seal.

### THE BERING SEA FUR-SEAL.

*Callorhinus ursinus* (Linnæus).

The carnivorous mammals are divided by naturalists into two principal groups, one comprising the terrestrial wolves, cats, weasels, and bears; the other, the amphibious eared-seals and walruses, and the aquatic seals. The second division (suborder Pinnipedia) is in turn sub-divided into three groups called families, namely, the eared-seals, comprising the sea-lions and sea-bears, or fur-seals (*Otariidæ*), the walruses (*Odobenidæ*), and the true seals (*Phocidæ*). The fur-seals and sea-lions form the connecting link between the terrestrial carnivores and the true seals, as recognized by all naturalists. The distinguished director of the British Museum, Pro- Divisions of mammals.

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Professor Flower.

fessor Flower, says: "The fur-seals or sea-bears . . . form a transition from the Fissiped [terrestrial] Carnivora to the seals . . . When on land the hind feet are turned forward under the body, and aid in supporting and moving the trunk as in ordinary mammals . . As might be inferred from their power of walking on all fours, they spend more of their time on shore, and range inland to greater distances, than the true seals, especially at the breeding time, though they are always obliged to return to the water to seek their food. They are gregarious and polygamous, and the males are usually much larger than the females."* He states further: "The resemblance between the skull and other parts of the body of the fur-seals and the Ursoid [*i. e.*, bear-like] Carnivora is suggestive of some genetic relationship between the two groups, and Professor Mivart expresses the opinion that the one group is the direct descendant of the other." All the fur-seals have conspicuous external ears, similar to those of most terrestrial mammals, except that they are folded lengthwise to keep out the water. The hair seals have no external ears. It may be added that

Distinction between fur-seals and hair seals.

*Article Mammalia, in the Encyclopædia Britannica (1883, p. 442); and again in his most recent work on Mammals (Flower and Lydekker, Introduction to the Study of Mammals, London, 1891, pp. 593, 594).

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the fur-seals, owing to the greater length and mobility of their flippers and to their structural peculiarities, travel on land with considerable facility and speed, the body being lifted high above the ground and the gait suggesting the ambling pace of the bear. The true hair seals (family *Phocidæ*) on the contrary are wholly unfitted for progression on land. From the natural history standpoint they represent the extreme of differentiation or departure from the ancestral stock among the terrestrial carnivorous mammals. In accordance with their aquatic habits the fore legs have been so modified that they are little more than stiff paddles, like those of the whale; the hind flippers stick out behind and can not be turned forward for use in terrestrial locomotion or in climbing over rocks, and their bodies drag heavily over the ground. Their movements on land or ice are awkward and laborious, and consist of a series of vertical curvatures and extensions of the spine, suggesting the method of locomotion of the measure worm.

Distinction between fur-seals and hair seals.

The amphibious fur-seals are not only intermediate between the hair seals and terrestrial carnivorous mammals in structure and means of locomotion, but also in habits, for they spend

Fur-seals.



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Fur-seals.

fully half of their lives on land; they climb steep and high hills with comparative ease, and have been known to travel inland fully three miles. The hair seals are strictly aquatic, spending most of the time in water, and some species hardly visit the shore at all.

## PRINCIPAL FACTS IN THE LIFE HISTORY OF THE FUR-SEAL.

Homes of the fur-seal.

1. The Northern fur-seal (*Callorhinus ursinus*) is an inhabitant of Bering Sea and the Sea of Okhotsk, where it breeds on rocky islands. Only four breeding colonies are known, namely, (1) on the Pribilof Islands, belonging to the United States; (2) on the Commander Islands, belonging to Russia; (3) on Robben Reef, belonging to Russia, and (4) on the Kurile Islands, belonging to Japan. The Pribilof and Commander Islands are in Bering Sea; Robben Reef is in the Sea of Okhotsk near the island of Saghalien, and the Kurile Islands are between Yezo and Kamchatka. The species is not known to breed in any other part of the world. The fur-seals of Lobos Island and the south seas, and also those of the Galapagos Islands and the islands off

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Lower California, belong to widely different species and are placed in different genera from the Northern fur-seal. Homes of the fur-seal.

2. In winter the fur-seals migrates into the North Pacific Ocean. The herds from the Commander Islands, Robben Reef, and the Kurile Islands move south along the Japan coast, while the herd belonging to the Pribilof Islands leaves Bering Sea by the eastern passes of the Aleutian chain. Southward migration.

3. The fur-seals of the Pribilof Islands do not mix with those of the Commander and Kurile islands at any time of the year. In summer the two herds remain entirely distinct, separated by a water interval of several hundred miles; and in their winter migrations those from the Pribilof Islands follow the American coast in a southeasterly direction, while those from the Commander and Kurile islands follow the Siberian and Japan coasts in a southwesterly direction, the two herds being separated in winter by a water interval of several thousand miles. This regularity in the movements of the different herds is in obedience to the well known law that *migratory animals follow definite routes in migration and return year after year to the same places to breed.* Were it not for this law there would be no such thing as stability of species, for interbreeding and exist- Pribilof and Commander herds do not mingle.

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Pribilof and Commander herds do not mingle.

ence under diverse physiographic conditions would destroy all specific characters.*

Difference of pelage of Alaskan and Russian fur-seals.

The pelage of the Pribilof fur-seals differs so markedly from that of the Commander Islands fur-seals that the two are readily distinguished by experts, and have very different values, the former commanding much higher prices than the latter at the regular London sales.

Extent of migration.

4. The old breeding males of the Pribilof herd are not known to range much south of the Aleutian Islands, but the females and young appear along the American coast as far south as northern California. Returning, the herds of females

Course of northward migration.

move northward along the coasts of Oregon, Washington, and British Columbia in January, February, and March, occurring at varying distances from shore. Following the Alaska coast northward and westward they leave the North Pacific Ocean in June, traverse the eastern passes in the Aleutian chain, and proceed at once to the Pribilof Islands.

* The home of a species is the area over which it breeds. It is well known to naturalists that migratory animals, whether mammals, birds, fishes, or members of other groups, leave their homes for a part of the year because the climatic conditions or the food supply become unsuited to their needs; and that wherever the home of a species is so situated as to provide a suitable climate and food supply throughout the year such species do not migrate This is the explanation of the fact that the Northern fur-seals are migrants, while the fur-seals of tropical and warm temperate latitudes do not migrate.

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Arrival of breeding males at islands.

5. The old (breeding) males reach the islands much earlier, the first coming the last week in April or early in May. They at once land and take stands on the rookeries, where they await the arrival of the females. Each male (called a bull) selects a large rock on or near which he remains until August, unless driven off by stronger bulls, never leaving for a single instant night or day, and taking neither food nor water. Both before and for sometime after the arrival of the females (called cows) the bulls fight savagely among themselves for positions on the rookeries and for possession of the cows, and many are severely wounded. All the bulls are located by June 20.

Battles on the rookeries.

Arrival and departure of bachelor seals.

6. The bachelor seals (holluschickie) begin to arrive early in May, and large numbers are on the hauling grounds by the end of May or first week of June. They begin to leave the islands in November, but many remain into December or January, and sometimes into February.

Arrival of cows.

7. The cows begin arriving early in June, and soon appear in large schools or droves, immense numbers taking their places on the rookeries each day between the middle and end of the month, the precise dates varying with the weather. They assemble about the old bulls in compact groups called harems. The harems are complete early

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Arrival of cows. in July, at which time the breeding rookeries attain their maximum size and compactness.

Birth of the young. 8. The cows give birth to their young soon after taking their places on the harems in the latter part of June and in July, but a few are delayed until August. The period of gestation is between eleven and twelve months.

Number of pups at birth. 9. A single young is born in each instance. The young at birth are about equally divided as to sex.

Dependence of pup upon its mother. 10. The act of nursing is performed on land, never in the water. It is necessary, therefore, for the cows to remain at the islands until the young are weaned, which is not until they are four or five months old. Each mother knows her own pup and will not permit any other to nurse. This is the reason so many thousand pups starve to death on the rookeries when their mothers are killed at sea. We have repeatedly seen nursing cows come out of the water and search for their young, often traveling considerable distances and visiting group after group of pups before finding their own. On reaching an assemblage of pups, some of which are awake and others asleep, she rapidly moves about among them, sniffing at each, and then gallops off to the next. Those that are awake advance toward her with the evident purpose of nursing, but she

Cow suckles her own pup only.

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repels them with a snarl and passes on. When she finds her own she fondles it a moment, turns partly over on her side so as to present her nipples, and it promptly begins to suck. In one instance we saw a mother carry her pup back a distance of fifteen meters (fifty feet) before allowing it to nurse. It is said that the cows sometimes recognize their young by their cry, a sort of bleat. Cow suckles her own pup only.

11. Soon after birth the pups move away from the harems and huddle together in small groups, called 'pods,' along the borders of the breeding rookeries and at some distance from the water. The small groups gradually unite to form larger groups, which move slowly down to the water's edge. When six or eight weeks old the pups begin to learn to swim. Not only are the young not born at sea, but if soon after birth they are washed into the sea they are drowned. 'Podding.' Aquatic birth impossible.

12. The fur-seal is polygamous, and the male is at least five times as large as the female. As a rule each male serves about fifteen or twenty females, but in some cases as many as fifty or more. Comparative size of bull and cow. The harem.

13. The act of copulation takes place on land, and lasts from five to ten minutes. Most of the cows are served by the middle of July, or soon Copulation.

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Copulation.

after the birth of their pups. They then take the water, and come and go for food while nursing.

Fertilization of young cows.

14. Many young bulls succeed in securing a few cows behind or away from the breeding harems, particularly late in the season (after the middle of July, at which time the regular harems begin to break up). It is almost certain that many, if not most, of the young cows are served for the first time by these young bulls, either on the hauling grounds or along the water front.

These bulls may be distinguished at a glance from those on the regular harems by the circumstance that they are fat and in excellent condition, while those that have fasted for three months on the breeding rookeries are much emaciated and exhausted. The young bulls, even when they have succeeded in capturing a number of cows, can be driven from their stands with little difficulty, while (as is well known) the old bulls on the harems will die in their tracks rather than leave.

Age of puberty in cows.

15. The cows are believed to take the bull first when two years old, and deliver their first pup when three years old.

Age at which males go in breeding grounds.

16. Bulls first take stands on the breeding rookeries when six or seven years old. Before

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this they are not powerful enough to fight the older bulls for positions on the harems. Age at which males go in breeding grounds.

17. Cows when nursing regularly travel long distances to feed. They are frequently found one hundred or one hundred and fifty miles from the islands, and sometimes at greater distances. Feeding excursions.

18. The food of the fur-seal consists of fish, squids, crustaceans, and probably other forms of marine life also. (See Appendix E.) Food.

19. The great majority of cows, pups, and such of the breeding bulls as have not already gone, leave the islands about the middle of November, the date varying considerably with the season. Departure from islands.

20. Part of the non-breeding male seals (holluschickie), together with a few old bulls, remain until January, and in rare instances until February, or even later.

21. The fur-seal as a species is present at the Pribilof Islands eight or nine months of the year, or from two-thirds to three-fourths of the time, and in mild winters sometimes during the entire year. The breeding bulls arrive earliest and remain continuously on the islands about four months; the breeding cows remain about six months, and part of the non-breeding male seals about eight or nine months, and sometimes throughout the entire year. Time fur-seals remain on islands.



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Length of time of migration.

22. During the northward migration, as has been stated, the last of the body or herd of fur-seals leave the North Pacific and enter Bering Sea in the latter part of June. A few scattered individuals, however, are seen during the summer at various points along the Northwest Coast; these are probably seals that were so badly wounded by pelagic sealers that they could not travel with the rest of the herd to the Pribilof Islands. It has been alleged that young fur-seals have been found in early summer on several occasions along the coasts of British Columbia and southeastern Alaska. While no authentic case of the kind has come to our notice, it would be expected from the large number of cows that are wounded each winter and spring along these coasts and are thereby rendered unable to reach the breeding rookeries and must perforce give birth to their young—perhaps prematurely—wherever they may be at the time.

Accidental births on coast.

Reasons that Pribilof Islands are the home of the fur-seals.

23. The reason the Northern fur-seal inhabits the Pribilof Islands to the exclusion of all other islands and coasts is that it here finds the climatic and physical conditions necessary to its life wants. This species requires a uniformly low temperature and overcast sky and a foggy

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atmosphere to prevent the sun's rays from injuring it during the long summer season when it remains upon the rookeries. It requires also rocky beaches on which to bring forth its young. No islands to the northward or southward of the Pribilof Islands, with the possible exception of limited areas on the Aleutian chain, are known to possess the requisite combination of climate and physical conditions.

Reasons that Pribilof Islands are the home of the fur-seals.

All statements to the effect that fur-seals of this species formerly bred on the coasts and islands of California and Mexico are erroneous, the seals remaining there belonging to widely different species.

Alaskan fur-seals do not breed on coast of California.

In the general discussion of the question submitted to the Commission it will be convenient to consider the subject under three heads, namely:

Subdivisions of report.

*Conditions* of seal life in the region under consideration at the present time.

*Causes*, the operation of which lead to existing conditions.

*Remedies*, which if applied would result in the restoration of seal life to its normal state, and to its continued preservation in that state.

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## CONDITIONS.

Present conditions.

In considering the condition of seal life on the Pribilof Islands at the present time, it is important to inquire, first, is there any marked decrease in the number of seals frequenting these islands during the past few years; and, second, if such decrease has taken place, among what class or classes of seals is it most notable?

Sources of information.

Although an affirmative answer to the first question is generally agreed to, it is worth while to consider for a moment the evidence on which such an opinion is founded, especially as it is all more or less related to questions concerning the amount of decrease and the period over which it extended, about which considerable differences of opinion are known to exist. This evidence easily resolves itself into two kinds: (1) the evidence of eyewitnesses or human testimony in which observations of several individuals cover the last quarter of a century; and (2) what may be called the internal evidence of the rookeries themselves as they appear to-day

Estimates of number of seals exaggerated.

It is proper to remark that in our judgment most, if not all, of the published estimates of the number of seals hitherto found on these islands are exaggerated. From the very nature of the case an estimate of numbers is extremely diffi-

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NORTHEAST POINT ROOKERY, ST. PAUL ISLAND, BERING SEA.

(From a photograph by Dr. C. Hart Merriam, taken August 5, 1891.)

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hundred feet in width. Mr. C. H. Townsend, resident naturalist of the United States Fish Commission steamer *Albatross*, visited Northeast

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NORTHEAST POINT ROOKERY, ST. PAUL ISLAND, BERING SEA

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cult. In short, one can say with much more certainty that there are fewer seals here now than five years ago than he could attempt a comparison by means of an actual or rather an assumed census.

Estimates of number of seals exaggerated.

### (I) EVIDENCE OF EYEWITNESSES.

The universal testimony of all who saw the rookeries a few years ago, and again in 1890 or or 1891, is that they have suffered a great and alarming decrease within the past six or seven years. In the case of Northeast Point Rookery, the largest single rookery known, and one from the hauling grounds of which about twenty to thirty-five thousand nonbreeding male fur-seals were taken annually for twenty years, the evidence is unequivocal and conclusive. This great rookery is several miles in length, and its former boundaries can be distinctly seen, as will be described in detail presently. (See also accompanying photograph.) The area occupied by breeding seals in 1891 was a narrow strip along shore, with a small area in the rear used as 'hauling grounds'; while the zone of former occupancy varies from one hundred to five hundred feet in width. Mr. C. H. Townsend, resident naturalist of the United States Fish Commission steamer *Albatross*, visited Northeast

Decrease on Northeast Point Rookery.

Visit of Commissioners.

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Visit of Commissioners.

Point Rookery in company with the British and United States Bering Sea Commissioners, August 5, 1891, and stated that when he visited the same rookery in the latter part of June, 1885, the broad zone here referred to "was covered solid with seals." Lieut. John C. Cantwell, of the Revenue Steamer *Rush*, Dr. H. H. McIntyre, Capt. Daniel Webster, Mr. J. C. Redpath, and Mr. George R. Tingel, corroborate Mr. Townsend's statement that the yellow-grass zone, or zone of former occupancy, was densely covered with seals in 1885.

Native testimony as to decrease.

The testimony of natives and others in regard to other rookeries agrees very well with the above, or places the time of abandonment at a still later date, some of the natives maintaining that the yellow-grass zone was covered with seals as recently as 1887. It is evident, therefore, that the extensive area here described as the yellow-grass zone, behind the narrow strip at present occupied by the seals on the various rookeries, was thickly covered not longer ago than 1885 or 1886, and in some cases perhaps as late as 1887.

The great decrease.

In our examination of many persons who had long resided upon the islands, there was universal agreement that there had been a great decrease in the number of seals within a few years. Although the testimony gathered by us on this

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NORTHEAST POINT ROOKERY, ST. PAUL ISLAND, BERING SEA.

(From a photograph by Dr C. Hart Merriam, taken August 5, 1891.)

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Full

Extracts from testimony taken.

*Alexander Makaroff*, native of [illegible] of St. Paul. His father had been chief of the natives of the island, and he had served in the same capacity until recently, when he had been deposed because, as he himself expressed it, he was "working in the interests of the Company rather than that of the Government."

In his opinion the number of seals had greatly diminished during the last few years.

*Dr. A. A. Lutz*, physician on the island of St.

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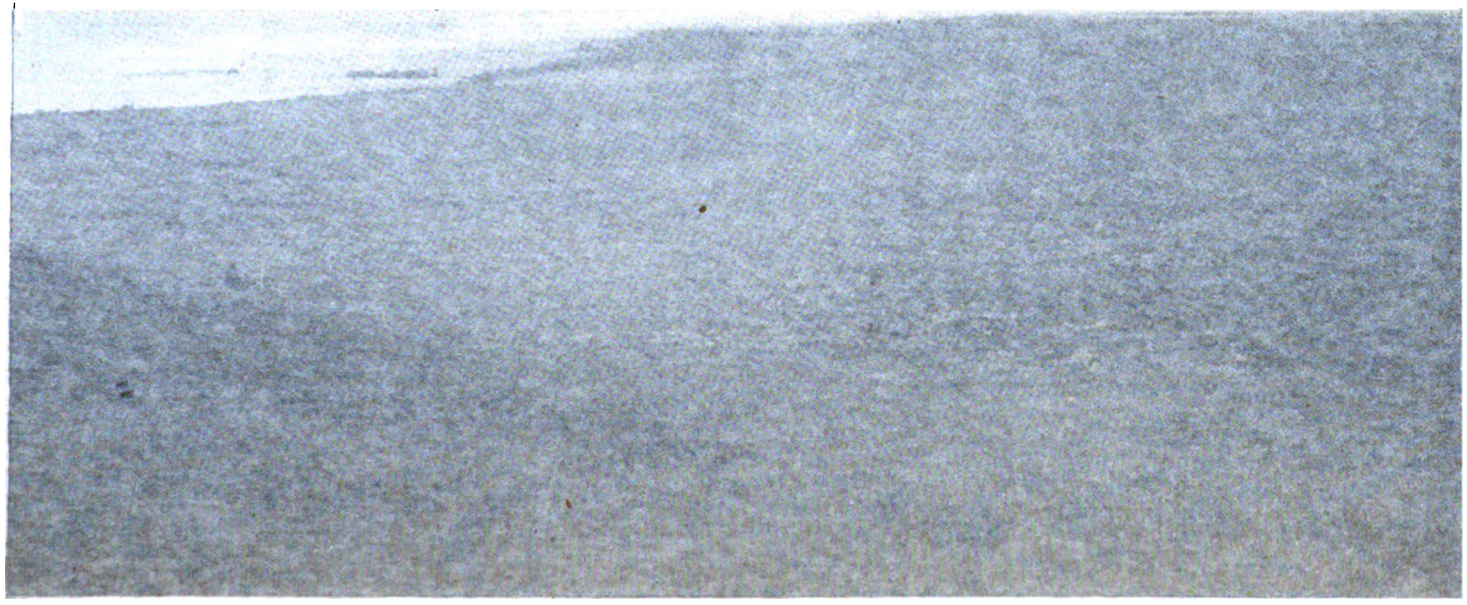

NORTHEAST POINT ROOKERY, ST. PAUL ISLAND, BERING SEA

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and other points was not given under oath, its value, in our judgment, is not in the least lessened by that fact. In nearly all cases the witneses were examined separately. No 'leading questions' were asked, and especial care was taken to prevent the examination from indicating in anyway what was desired to be proved. Full notes of answers and statements were made, and in all cases of special importance the question was repeated and the answer read in order to be sure that the opinion of the witness had been properly given. In short, the investigation was conducted precisely as it would have been had the question been one of scientific rather than diplomatic importance.

The great decrease.

A few extracts from the evidence relating to diminution in numbers will indicate its general character.

Extracts from testimony taken.

*Anton Melovedoff*, native of the island of St Paul. His father had been chief of the natives on the island, and he had served in the same capacity until recently, when he had been deposed because, as he himself expressed it, he was "working in the interests of the Company rather than that of the Government."

In his opinion the number of seals had greatly diminished during the last few years.

*Dr. A. A Lutz*, physician on the island of St.

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Extracts from testimony taken.

George since 1884: "There has been a great falling off during the past few years."

*Mr. Emmons*, collector of the port at Unalaska: gets his information from the officers and men of the schooners and other craft engaged in pelagic sealing; thinks that if the present state of affairs is allowed to continue the herd of seals will soon be destroyed.

*Nicoli Krukof*, born in Sitka, came to the island of St. Paul two or three years before the time of the Alaska purchase; is now second chief on the island; speaks English very well. Seals began to decrease in number about seven years ago and have diminished rapidly since. It is his opinion that not more than one-fourth as many seals are now on the rookeries as were to be found ten years ago.

*Kerrick Artomanoff*, aged sixty-seven years, born in St. Paul; his father was a sealer under the Russian règime, as was he also up to the time of the Alaska purchase. In all he has been employed in seal killing for forty-five years. His testimony is interpreted by Nicoli, the second chief.

The number of seals has diminished very greatly within the last few years. He has seen the rookeries so full that a cow could not get ashore in time for the birth of her young, in

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which case the pup was born in the water and drowned. Extracts from testimony taken.

*Mr. J. C. Redpath*, resident agent of the North American Commercial Company, and previously agent of the Alaska Commercial Company during a period of fifteen years.

Mr. Redpath has enjoyed unusual opportunities for the intelligent study of seal life. That he has made good use of them may be attributed to the fact that the best interests of the companies which he has represented on the islands demanded that no one should be better informed than he, especially in the matter of increase or decrease in the number of killable seals and the causes to which changes are to be attributed.

He said: "Not more than one-half as many females are on the rookeries this year as were to be found there ten years ago. There is the same loss in the holluschikie, about."

*Captain Webster*, agent of the North American Commercial Company on the island of St. George, has been on the seal islands for twenty-two years; was a whaler and sealer in these waters before coming to the islands; has been in the employ of the sealing companies from the beginning of the management by the United States. Captain Webster had a wide experience as a sealer in other parts of the world before



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Extracts from testimony taken.

entering the service of the Alaska Sealing Company. Few persons have as much knowledge of seals and the sealing industry as he. His statement was that the falling off last year at St. George was very great, and this year the number is considerably less than last. "There are not over one-third as many seals on this island as were here a few years ago."

Difficulty of lessees to obtain quota.

Evidence of this character might be multiplied to almost any extent were it thought necessary. It is well known that during the last few years the operating Company had experienced difficulty in finding a sufficient number of high-class skins to fill the quota permitted by the Government, and that finally that quota was greatly reduced by order of the representatives of the Government on the islands. It may therefore be accepted as an undisputed fact that the seal population of the islands is greatly below what it was for many years and there is little doubt that if the causes which brought about this reduction are permitted to continue in operation, commercial extinction of the herd within a few years will be the inevitable result.

Undisputed decrease.

But, fortunately, we are not obliged to accept this conclusion solely on the basis of such testimony as that given above, reliable and convinc-

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ing as it is believed to be. The evidence offered by the physical condition of the rookeries themselves would alone be sufficient to satisfy anyone that at some previous time the seal population had been vastly greater than at present. Undisputed decrease.

(II) INTRINSIC EVIDENCE AFFORDED BY THE ROOKERIES THEMSELVES.

Behind each rookery is a more or less sharply defined strip or belt varying from one hundred to five hundred feet in width, which differs conspicuously in appearance from the ground on either side. It is covered with a short and rather fine grass of a yellowish-green color (*Glyceria angustata*), more or less mixed with tufts of a coarser species (*Deschampsia cæspitosa*), both differing strikingly from the tall and rank rye grass (*Elymus mollis*) usually growing immediately behind. In many places the ground between the tussocks and hummocks of grass is covered with a thin layer of felting, composed of the shed hairs of the seals matted down and mixed with excrement, urine, and surface soil. This felting could not have been formed otherwise than by the movements of seals back and forth over the ground for many years. In the same zone the rough upper surfaces and angular projection of the rocks have been rounded off and polished by The yellow-grass zone.

Worn rocks.

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Worn rocks.

the former movements of the seals. This polishing, though now partly hidden by weathering and the growth of lichens, is still conspicuous, and can be attributed to no other cause than to the movements of the seals on the rookeries during a long period of years. The fact that the sides of these same rocks remain in their original rough condition is sufficient proof that the smooth upper surfaces could not have been produced by sand-polish.

Bunch-grass zone.

In some of the rookeries another zone may be discerned behind the yellow-grass zone, indicating the extent of the rookery at some still more remote period. The grass on this area is bunch grass (*Deschampsia cæspitosa*); the lichen growth on the rocks is heavier than on the one just described, and the polished surfaces of the rocks show more weathering. This latter zone abuts against the more elevated turf bearing the characteristic tall grass of the islands, and marks the period of maximum abundance of the seals.

Comparative size of areas.

The aggregate size of the areas formerly occupied is at least four times as great as that of the present rookeries.

Decrease shown by rookeries.

In short, the characteristics of a region long occupied by seals are so marked as to be unmistakable, and while it is possible to explain the existence of a small part of the unoccupied

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ground on the supposition that the seals 'rove' more or less, occupying this field at one time and that at another, no one who studies the islands as they now are can fail to see that the space now covered by seals is only a fringe compared with the areas that were once alive with them.

Decrease shown by rookeries.

Having answered the first of the two queries relating to conditions of seal life at the present time, the second becomes important. It is, Has the decrease in numbers been confined to any particular class of seals, or is it most notable in any class or classes? In answer to this it is our opinion that the diminution in numbers began and continues to be most notable in female seals.

Decrease is in female portion of herd.

It is quite likely, in fact almost certain, that the decrease would not be first discovered or remarked in this class.

Difficult to notice decrease in females.

The Government officers and Company's agents on the islands are principally concerned with the 'holluschickie,' in which class the killable seals are found, and the first signs of decadence would probably appear in the fact that more seals had to be driven in order to obtain a given number of merchantable skins.

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Difficulty in obtaining quota after 1887.

For eighteen years after the Alaska purchase about one hundred thousand bachelor seals were secured annually without difficulty and without impairing the productiveness of the breeding rookeries, but the decrease brought about by pelagic sealing made it extremely difficult to obtain this number after 1887, and the standard of size was lowered several times in order to obtain the full quota. In 1890 the rookeries and hauling grounds had fallen off to such an alarming extent that the Treasury agent in charge ordered the killing to stop on July 20, at which date only twenty-one thousand seals had been secured, and it may be added that this number was taken only after the greatest exertion on the part of the Company's agents.

Mistaking *effect* for *cause*.

The percentage of seals of killable size was so small (fifteen to twenty percent) compared with the percentage of yearlings, that it is not surprising that the Treasury agents on the islands were impressed with the scarcity of young males, and being new men, inexperienced in matters relating to seal life, were easily led to mistake *effect* for *cause* and attributed the decrease to the killing of too many young males at the islands in previous years, instead of to the destruction of the mothers and young by

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pelagic sealers, an error they were quick to correct after another year's experience. Mistaking *effect* for *cause*.

The number of seals killed each day during the killing season may be taken as a rough index to the rapidity of the decline of the rookeries in the past few years. Treasury Agent Charles J. Goff, in charge of the seal islands in 1889–'90, states in his official report that the average daily killing in 1890 was five hundred and twenty-two, while in 1889 it was one thousand nine hundred and seventy-four for the same period. Decrease shown by daily killing.

In his report for 1889 Treasury Agent Goff states: "The alarming decrease in the daily, weekly, and monthly receipts of [skins by] the Alaska Commercial Company, and as a dernier resort by said Company to secure their one hundred thousand skins, the killing of smaller seals than was customary attest conclusively that . . . there is a scarcity of seals, and that within the last year or so they are from some cause decreasing far beyond the increase." He states further: "I regard it absolutely essential, for the future of the rookeries, that prompt action be taken by the Department for the suppression of illegal killing of seals in Bering Sea, and that the utmost economy be observed in taking the seals allowed by law." Report of Treasury Agent Goff.

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Why decrease of females was not noticed.

A considerable decrease in the number of female seals upon the breeding rookeries might not be noticed at first where the total number is so large, but in two or three years the effect of this loss would be felt in the class of killable seals, and might there be quite evident. The loss in one class would thus follow surely but somewhat behind the other in time. When the diminution in the number of killable seals became notable, attention was at once drawn to the breeding rookeries, and it was found that they were being depleted. Thus Captain Webster declared: "The great destruction has been among females. Formerly there would be, on an average, thirty cows to one bull; now they will not average fifteen."

Diminished size of harems.

And Mr. Redpath (already quoted) stated: "Not more than one-half as many females are on the rookeries this year as were found there ten years ago."

Effect of decrease of females on male life.

The reaction of a considerable reduction in the number of females upon the number of young male seals would be immediate and certain, while a reduction in males must reach such a point as to lessen the supply of bulls for the breeding rookeries before the birth-rate can be affected. There is no evidence to show that this limit has been reached in recent years, and it seems clear,

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therefore, that the reduction in numbers originated in and is to be attributed to the loss of female seals. Effect of decrease of females on male life.

CAUSES.

If the above representation of the *conditions* of seal life at the present time be accepted as correct, the determination of *causes* is practically limited to the discovery of the origin of the increased mortality among female seals. Where decrease of seals should be sought.

It is our belief that the decadence of seal life on the Pribilof Islands is due to the destructive effects of pelagic sealing. Cause, pelagic sealing.

As widely different opinions are held on this point we will present at some length the principal reasons upon which our belief is founded. Reasons for opinion.

In the joint report of the Commission it is agreed that the diminution in the number of seals is to be attributed to the operations of man. As man comes in contact with the fur-seal in only two ways, that is, in pelagic sealing and sealing upon the islands, it follows that in one or the other or in both of these operations the injury must be inflicted. Decrease caused by man.

In order to enjoy a clearer view of the problem it will be desirable to consider for a moment the conditions under which a herd of seals assumes its normal dimensions, uninfluenced by the presence of man. Condition of herd untouched by man.



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Birth-rate and death-rate.

In the case of the seal or any other animal the condition of the species as to number must always depend upon the relation of the birthrate to the deathrate. As long as these two are equal the number remains constant, provided, of course, the distribution of deaths among the various ages remains the same. Change the distribution, and there will be a temporary increase or decrease in the total number of the species, according as the deaths are shifted toward the later or earlier part of the animal's existence. Thus, suppose twenty years to be the normal age of the seal: if all deaths occur at the end of twenty years, the total number alive at any one time would be much greater than if the mortality was distributed throughout the whole period. When a certain distribution of this mortality is determined upon, however, the number of individuals living at one time will adjust itself to this distribution and will then remain constant, provided, always, that the distribution of mortality is such as not to affect the number of births. If, in any species, it could be determined that no deaths should occur until sometime after the reproductive age had been reached, such a species would increase with great rapidity. With equal certainty, if it were fixed that all deaths should occur before the reproductive age, the species would be shortly

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annihilated; and if more than a certain number of deaths occur at that early period, the destruction of the species is only a question of time. Given, therefore, a species comprising a certain number of individuals, that number will tend upward or downward or will remain constant, according to the relation of births to deaths. In nature, where the conditions for a certain species are favorable, the usual course is that the numbers increase until by the increase of their natural enemies, or the less favorable character of the conditions (usually less favorable by reason of insufficient food supply resulting from increase in numbers), the birthrate and deathrate become equal, after which the number will remain constant until some new influence makes its appearance to affect them favorably or unfavorably. Birth-rate and death-rate.

This is the condition which the seals would unquestionably reach in time, if not interfered with by man, and which, undoubtedly, they have reached at various times in their history. Under this condition certain numbers of seals are born every year and the same number die every year, the total number alive at any one time depending on the distribution of the deaths among seals of various ages.

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Man does not necessarily increase death-rate.

Now, let man enter upon the scene, and let him destroy annually a certain number of seals. The deathrate is not necessarily increased, the time of dying only may be changed, seals being killed at the age of four years which would otherwise have lived to the age of fifteen or twenty. The total number of seals living at one time may be much reduced while the number of births may remain the same.

Regulation of killing.

If man is benefited by killing seals, in order that his gain may be as great as possible, it is evidently important to so conduct the killing that the dimensions of the herd may be maintained at a maximum. The larger the herd the more he can take annually for his own uses. This maximum number is secured, and is secured only by bringing to and maintaining the number of births per annum at the highest possible limit.

Interference with birth-rate injurious.

We have gone thus into the details of this argument in order that there might remain no doubt as to its effect, and to emphasize the simple but most important proposition that *whatever interferes with the birth-rate is injurious to the seal herd.*

Effect of a single young a year.

It may be well at this point to invite attention to the fact that the fur-seal as a species is very sensitive to influences which tend to disturb the balance between births and deaths. Unlike

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many animals, the number of offspring thrown upon the world to take their chance in the struggle for existence is small, each fertile animal giving birth to only a single young each year.

Effect of a single young a year.

The life of the seal herd, then, depending as it unquestionably does on the constancy of the number of births, can be endangered from two directions: First, from the killing of fertile females; and, second, from the excessive killing of males, carried to such an extent as to prevent the presence of the necessary number of virile males on the breeding rookeries. To one or the other of these causes must be charged the great change that has come upon the rookeries within recent years, and the commercial destruction with which the sealing industry is now seriously threatened.

How birth-rate may be lessened.

We are firmly of the opinion that an impartial examination of all the facts in the case will show conclusively that the latter of the two possible causes has had no appreciable part in the destructive work that has been accomplished.

Killing a certain number of males will not affect birth-rate.

The polygamous habits of the fur-seal have already been described, as well as the separation in hauling out of the 'holluschickie' or younger males from the breeding rookeries. The battles among the older males for places upon the breed-

Battles on rookeries show no lack of males.

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Battles on rookeries show no lack of males.

ing grounds have long been described as one of the peculiar characteristics of the species. A younger male is obliged to win his right to a harem by conflict with his older brethren already in possession. Many thousands of virile young males lie at a convenient distance on the hauling grounds, ready to engage in a struggle for a place in the affections of the female seal should a favorable opportunity occur.

Notwithstanding the depleted condition of the rookeries, these conflicts and struggles still go on. They went on last year and also in 1890. This condition of things is utterly incompatible with any theory which assumes a scarcity of virile males. The evidence of the most reliable and credible observers goes to prove the same thing. Mr. Redpath and Captain Webster have already been quoted as declaring that it is among female seals that the great scarcity exists, but it is worth while here to repeat the statement of the latter, that "formerly there would be on an average thirty cows to one bull; now they will not average fifteen." Several of the native observers placed the number of cows formerly served by one bull at a much higher figure than thirty. These facts rather tend to show that males are relatively in excess on the breeding rookeries at the present time. Our own observations

Testimony as to no lack of males.

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convinced us that at least there could be no deficiency and that it was a practical impossibility for any breeding cow to escape service on account of paucity of virile males. Testimony as to no lack of males.

The unavoidable conclusion is, then, that the deterioration of the herd must be attributed to the destruction of female seals. Decrease caused by killing females.

If a herd of seals be taken in its natural condition, that is, as not interfered with by man, males and females will be found practically equal in number, as the number of births in a year of both sexes is the same, and we have no reason to believe there is any great difference in the natural mortality of the sexes. The total number of females may be divided into two classes, the breeding and the nonbreeding, the former being probably a large proportion of the whole. The nonbreeding females include those that have not yet reached the reproductive age and the few which from old age or other causes are barren. Natural condition of herd. Classes of females.

The male seals may likewise be divided into two classes, the virile and the nonvirile, the latter including those below the age of virility and those impotent on account of old age. The reproductive power of the herd, therefore, lies in the breeding females and the virile males. The maintenance of the birthrate, the vital and essential element in the preservation and perpetuation Classes of males. On what birthrate depends.

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On what birth-rate depends.

of the herd, requires the preservation of the *whole* of the class of breeding females, while only a small number of virile males are necessary or at all concerned in the matter.

This is the great essential difference between the importance of the life of the female and that of the male to the conservation of the herd, and it is the fundamental proposition on which hangs the solution of the whole problem.

Explanation of diagrams.

We have ventured to illustrate this by means of a graphic exhibition of a hypothetical herd of eighty thousand seals, in the accompanying diagrams, in which the effect of killing males is shown to be harmless, if kept within certain limits. In these diagrams the age of the seals is shown on the horizontal line at the base of the figure and the number of seals at any given age is proportional to the length of the vertical line on the diagram at the point representing the age. Unfortunately we have no 'tables of mortality' for seals; we know only approximately their maximum age and we have little knowledge as to the distribution of their deathrate. Based on the best information available, we have assumed the normal age to be twenty years, and, to be on the safe side, have further assumed that one-half of the seals born die during the first year after birth. The outer curve of the diagram, showing

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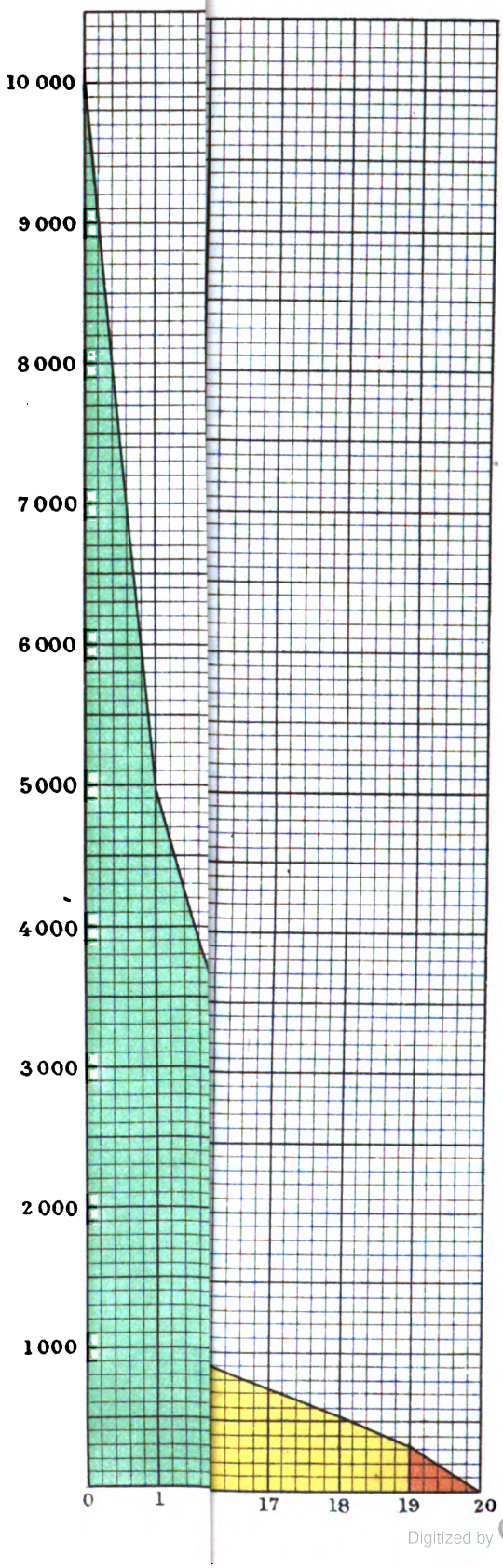


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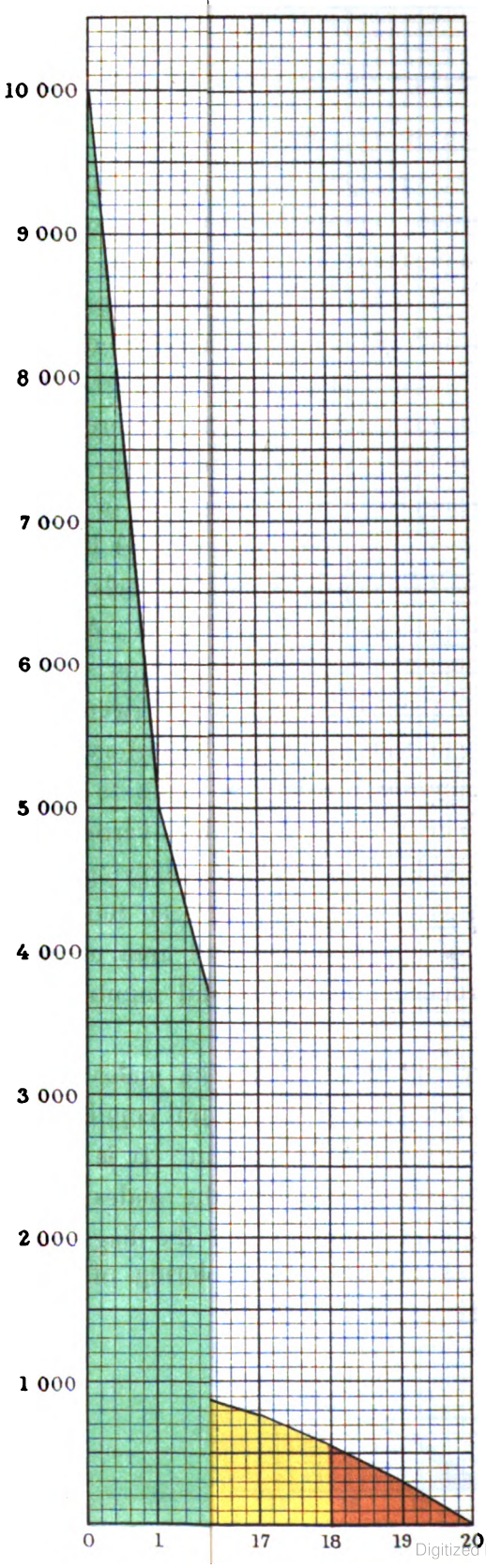


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Explanation of diagrams.

the distribution of ages from this time on pretends only to be an approximation, as it is impossible to obtain the accurate information necessary for a better representation. We maintain, however, that the fullest knowledge would necessitate no change which would materially affect the force of our argument based on these diagrams.

The longest vertical line at the left represents the number of births annually, which, for convenience, is assumed to be ten thousand of each sex. At the end of one year the vertical line is reduced one-half in length, as half the seals born the year before are assumed to be dead. At the end of the second year it is still further shortened, and so on until the end of the twentieth year. There can thus be traced the history of a group of ten thousand seals from birth to final extinction, the area bounded by lines vertical at the beginning and end of any year showing the number alive at any age, as between ten and eleven years of age, and the total area of the diagram is proportional to the total number of seals in the herd.

Diagrams A and B represent the males and females of such a herd in its natural condition, that is, not interfered with by man. It is in a condition of practical stability, the males and females are equal in number, and the diagrams are identical, except as to the coloring of the



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Explanation of diagrams.

different parts, by means of which it is attempted to represent the numbers of the different classes of seals. We can fix the ages for 'killable seals' with certainty, and all included under that head are represented in the diagram by that portion colored red. Male seals not killable and not old enough to take a place on the breeding rookeries are shown in green, while those of the breeding age are shown in yellow. The lines of demarcation up to this point are quite accurately known and the diagram may be regarded as correct, but we do not know certainly at what age the male becomes impotent and is driven off the rookery. The best estimate based on analogies of other animals, places this period at about the age of seventeen years, and the diagram so represents it.

In the classification of female seals there is some difficulty, for while we are tolerably certain that the young female goes on the breeding rookeries at least at the age of three years, we know little about the age at which she becomes barren. The assumption that this period is reached, on the average, at the age of eighteen years, is, perhaps, not very far from the truth. The younger females under the breeding age are presented in green, the breeding females in yellow, and the barren in brown.

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Explanation of diagrams.

Thus the diagrams give, it is believed, a fair representation of the condition of a herd of about 80,000 seals, 10,000 males and the same number of females being born each year, showing the breeding and the nonbreeding of both males and females; the breeding males, it must be remembered, including those not only found at the head of harems, but all of those that in virtue of their age and condition are capable of filling a place on the breeding rookeries. The killable males include only those not under two or over four years of age, which furnish skins of the finest quality and greatest value.

It is important to remark here that everyone of the breeding females is necessary to insure the annual birth of 20,000 pups. If this were not the case and the herd were undisturbed it would increase in numbers, which is contrary to the hypothesis that it has already reached its normal condition of stability.

Diagram C shows the male portion of the same herd when judiciously worked by man. No females under the breeding age can be killed, for that would very shortly reduce the number of breeding females, and none of these can be spared without reducing the number of births. The only females available for killing without injury to the herd are the barren females. Were their

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Explanation of diagrams.

skins not inferior and of less value than those of the young males it would be impossible, under the most favorable circumstances, to certainly distinguish them from their more fruitful sisters. With males, however, the case is entirely different. It is only necessary with those of the killable age given above to allow enough to escape the club to supply the annual deficit of virile males on the breeding rookeries. In other words, if 100,000 breeding females were required to maintain a given herd, rigorously speaking, and assuming as a moderate estimate twenty females in each harem, only 5,000 breeding males would be required and it would only be necessary to spare enough to keep up this number. The diagram assumes a much more liberal supply of males, however, the ratio being assumed at twelve to one.

The diagram shows that the total number of males in the herd would be greatly diminished and the census of the whole herd correspondingly lessened. But when once reached, the new condition would be constant and self-sustaining; the same number of seals might be killed annually forever without danger of diminution, except from other causes. The calculation on which the diagram is constructed shows that the number of male seals would be

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Explanation of diagrams.

reduced to nearly one-half of what it would be in the undisturbed condition, and that about twelve to thirteen years would be required to reduce the male herd to this condition of stability under constant killing. Taking such a herd as is considered in the construction of the diagrams, it would number about 80,000, equally divided between the two sexes, 20,000 being added by birth and the same number subtracted by death each year.

In order to represent more clearly the enormous herd of seals which it may be supposed at one time frequented the Pribilof Islands, undisturbed by man, these numbers may be multiplied so as to give a total of 3,000,000 seals, 750,000 being born every year and the same number dying from natural causes. Of the 1,500,000 females about 800,000 would be breeding, the remainder mostly too young to breed, a very small number being barren. Of the 1,500,000 males about 65,000 would be on the breeding rookeries, and the remainder, excluding the young just born, would haul out as 'holluschickie,' and would include 285,000 of a suitable age for killing, on account of the superior character and condition of their skins.

In undertaking to utilize the products of this herd for the good of man, the problem which is

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Explanation of diagrams.

presented is to determine how many and what classes of seals may be taken annually without diminishing the number of births. As already stated, the solution consists in taking a limited number of male seals between certain ages, leaving a sufficient number of breeding males for the rookeries and guarding the females in the most careful manner. The investigation shows that in this assumed herd of three million 80,000 males may be taken annually between the ages of two and five years, and that the total number of males will be gradually reduced from 1,500,000 to about 880,000, thus diminishing the total of the herd from 3,000,000 to 2,380,000, after which no further reduction will take place.

One reason females are killed by pelagic sealers.

When it is remembered that of the 880,000 male seals remaining, 375,000 are the recently born young, and after making the same reduction of the total females (1,500,000) it will be seen that under these conditions the number of females is more than double the number of males and this fact alone would account for an excessive number of females taken by pelagic sealers.

Conclusions from diagrams.

An examination of the diagrams will show that the number of seals included in the class of breeding females is but little in excess of the number actually necessary for the maintenance of the birthrate, provided every seal is fruitful

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every year. In the nature of things, this can not be expected, and the excess here existing is undoubtedly small enough to insure against loss. Although the allotment of one male to twelve females is believed to be less than the actual average in nature, the number of males allowed to escape the club is considerably in excess of that demanded on this supposition, and all of the hypotheses of the calculation are made to insure safety and perpetuity to the herd.

Conclusions from diagrams.

The graphic representation of the condition of the herd serves also to emphasize the fact that when an attack is made on the life of the seal by destroying the females, the results of such destruction will be first noticed in a diminished number of killable males. The number of males being relatively small, any change is more readily observed, particularly since the killable males of the herd are the only seals in which the islanders are immediately interested.

Effects shown by diagrams.

Having thus shown the possibility of continually taking a large number of male seals without the slightest danger to the herd, and also that the only harmless killing of female seals is that in which the barren only are destroyed, let us examine the nature of pelagic sealing and its results as compared with sealing on the islands.

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## SEAL KILLING ON THE PRIBILOF ISLANDS.

Possibility of restriction.

In reference to the latter it can be positively affirmed that it can be entirely controlled by man. The sex and age of the seals killed may be fixed by regulation and the number to be taken definitely determined in advance. In fact, it is difficult to imagine any operation of a similar character more perfectly controllable than this. Not only can the character of seal to be killed be rigorously prescribed, but the killing can be conducted in such a manner as to be least harmful to the remaining portion of the herds, and that freedom from disturbance during the breeding season which is so essential to the life of the seal can be assured.

Class of seals killed.

The only seals killed at the seal islands are nonbreeding males (under five or six years of age, called 'holluschickie'). They come up on the rookeries apart from the breeding seals, and large numbers are present by the latter part of May or first week in June, after which they constantly pass back and forth from the water to the hauling grounds.

Driving.

They are driven from the hauling grounds to the killing grounds by the native Aleuts, who have been trained in this work from generation to generation. Here the seals are divided into little groups. Those selected as of suitable size are killed by a blow on the head

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with a club, the others are allowed to go into the water and soon reappear on the hauling grounds. In this way about one hundred thousand young males have been killed annually on the Pribilof Islands for twenty years. Driving.

In addition to the commercial killing above described, a number of male pups were formerly killed each year to furnish food for the natives, but the killing of pups is now prohibited by the Government. Killing pups for food.

The only objections that have been urged against this mode of taking seals are such as relate to details of the operations as ordinarily carried on, any of which could be modified if it was found desirable to do so. Much stress has been laid upon the destructive effects of seal driving, and it has even been affirmed that when a male seal has once been 'driven' its reproductive powers are lost. Criticisms on manner of 'driving.'

While there is no doubt that in some instances excessive driving has been allowed, that seals have been driven further than is actually necessary, and that proper care has not been taken to eliminate the nonkillable seals as far as possible before the driving is well under way, those are matters that are so entirely under control that a proper adjustment may be secured at once.



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Male seals not injured by 'driving.'

The assumption that driving is seriously injurious to the reproductive powers of the male is doubtless unfounded, being quite contrary to the declared belief of Captain Webster and other sealers of long experience. Against every assertion of this kind it is only necessary to put the fact that there is no evidence of a lack of virility on the rookeries, but, on the contrary, it is evident that there is a surplus of it at the present time, unless, indeed, it is assumed that harems are defended and held against the most ferocious attacks, often at a loss of much blood and muscle, by impotent seals.

Management.

Seal killing on the Pribilof Islands has been and is conducted on the theory outlined above, that the male seal only should be killed, and of these a limited number whose age falls within certain narrow limits, and that the female should be spared at all hazards. The same principle controls the killing on the Commander Islands, and, as far as we know, wherever and whenever the operation has been subjected to intelligent control. Where these restrictions have not been applied the life of the herd was generally short and the commercial destruction complete.

The picture presented by pelagic sealing is of a different character.

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## SEAL KILLING AT SEA OR PELAGIC SEALING.

Vessels and crew.

Pelagic sealing is carried on chiefly by means of schooners, each of which is provided with a crew of twenty to twenty-five men and several small boats for hunting. When seals are encountered the small boats put out and the hunting begins. If a seal is seen on the surface the hunter approaches it as quietly as possible, and when near enough shoots it with the shotgun or rifle; but most seals are shot as they rise within range of the boat. When a seal is shot the oarsman pulls toward it as rapidly as possible in the hope of reaching it before it sinks. By the aid of an iron hook on the end of a light pole many seals are secured after they have sunk below the surface but have not yet passed out of reach. Some of the sealing vessels use steam power, but most of them depend on sails.

Manner of hunting.

The gaff.

Indian hunters.

Formerly, Indian crews were taken almost exclusively, and the spear was used instead of firearms, in order not to frighten the seals. This method had the great advantage of securing nearly all seals wounded. Now, both Indian and white hunters are employed, and the use of the spear has been almost wholly superseded by the use of firearms. The shotgun is used more than the rifle for the reason that fewer wounded seals are lost thereby.

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Indian hunters. In addition to the destruction wrought by the sealing schooners, pelagic sealing is still carried on along shore by the native Indians in their canoes, but the number of fur-seals thus killed is relatively small.

History. Pelagic sealing has been carried on fortuitously and on a small scale for many years, but it was not until within the present decade that numerous vessels engaged systematically in the enterprise. The profits are so great in comparison with the capital invested that, as the results of the annual catch became known each year, a constantly increasing number of vessels was led to engage in the industry, with a corresponding increase in the number of seals killed in the open sea. The fur-seals which move northward along the coast of the Northwestern United States, British Columbia, and southeastern Alaska from January until late in June are chiefly pregnant females, and about ninety per cent of the adult seals killed by pelagic sealers in the North Pacific are females heavy with young.

Destruction of female seals.

Pelagic sealers enter Bering Sea. For several years the pelagic sealers were content to pursue their destructive work in the North Pacific, but of late they have entered Bering Sea, where they continue to capture seals in the water throughout the entire summer. The

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females killed during this period are giving milk, and are away from the islands in search of food. Their young starve to death on the rookeries. We saw vast numbers of dead pups on the island of St. Paul last summer (1891), which, from their emaciated condition, had evidently died of starvation. The total number of their carcasses remaining on the Pribilof Islands at the end of the season of 1891 has been estimated by the United States Treasury agents at not less than twenty thousand.

Nursing females killed.

Dead pups on the rookeries.

Pelagic sealing is now carried on in the North Pacific Ocean from January until late in June, and in Bering Sea in July, August, and September. Some sealing schooners remain as late as November, but they do so for the purpose of raiding the rookeries.

Bering Sea sealing season.

The number of seals secured by pelagic sealers is exceedingly difficult to ascertain, because no complete record has been kept of any except those sold in Victoria, British Columbia. Many thousands have been sold in San Francisco, concerning which we have not been able as yet to obtain reliable information.

Catch of sealing vessels.

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The number of seal skins actually recorded as sold as a result of pelagic sealing is shown in the following table:*

| Year | No. of skins | Year. | No. of skins. |
|---|---|---|---|
| 1872 | 1,029 | 1882 | 17,700 |
| 1873 | ..... | 1883 | 9,195 |
| 1874 | 4,949 | 1884 | †14,000 |
| 1875 | 1,646 | 1885 | 13,000 |
| 1876 | 2,042 | 1886 | 38,907 |
| 1877 | 5,700 | 1887 | 33,900 |
| 1878 | 9,593 | 1888 | 37,789 |
| 1879 | 12,500+ | 1889 | 40,998 |
| 1880 | 13,600 | 1890 | 48,519 |
| 1881 | 13,541 | 1891 | 62,500 |

†Number estimated from value given.

Indiscriminate killing.

It can not be denied that in pelagic sealing there can be no selective killing, as far as individual seals are concerned, and only in a limited degree by restricting it as to place and time. It necessarily follows that female seals must be killed and seals whose skins owing to age and condition are much less desirable. As

* The figures for the years 1872 to 1876, inclusive, and 1891, are from the London Trade Sales. Those from 1877 to 1887, inclusive, are from the official reports of the Minister of Marine and Fisheries of Canada, and probably fall short of the actual catch, because the catch of the United States vessels is not included. The figures for 1888 are from the same source (26,983) plus the United States pelagic catch (9,806), as stated in the Report of the United States Commissioner of Fish and Fisheries for that year. The figures for the years 1889 and 1890 are from the Canadian Fisheries Reports, and comprise both the catch of the Canadian fleet (33,570 for 1889 and 44,750 for 1890) and of other vessels which sold their skins in Victoria, British Columbia (7,428 in 1889 and 3,768 in 1890). The catch of American vessels sold in San Francisco is not included.

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a matter of fact, there is sufficient evidence to convince us that by far the greater part of the seals taken at sea are females; indeed, we have yet to meet with any evidence to the contrary. The statements of those who have had occasion to examine the catch of pelagic sealers might be quoted to almost any extent to the effect that at least eighty percent of the seals thus taken are females. On one occasion we examined a pile of skins picked out at random, and which we have every reason to believe was a part of a pelagic catch, and found them nearly all females. When the sealers themselves are not influenced by the feeling that they are testifying against their own interests they give similar testimony. The master of the sealing schooner *J. G. Swan* declared that in the catch of 1890, when he secured several hundred seals, the proportion of females to males was about four to one, and on one occasion in a lot of sixty seals, as a matter of curiosity he counted the number of females with young, finding forty-seven.

Percentage of females in catch.

Evidence on this point might be extended indefinitely, but one or two additional references will be valuable. The following is from Messrs. C. M. Lampson & Co., of London, the most extensive dealers in furs in the world, and everywhere

Letter of C. M. Lampson & Co.

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Letter of C. M. Lampson & Co.

recognized as a high authority on this question. Referring to the regular supply of fur-seals that had for many years come into the market from the vicinity of Vancouver Island, they remark:

"The quantity, we should say, has averaged at least ten thousand per annum. This catch takes place in the months of March and April, and we believe that the animals from which these skins are derived are females of the Alaska seals, just the same as those caught in the Bering Sea. Had this quantity been materially increased we feel sure that the breeding on the Pribilof Islands would have suffered more before now, but, fortunately, the catch must necessarily be a limited one, owing to the stormy time of the year at which it is made and the dangerous coast where the seals, only for a short time, are found. It must, however, be evident that if these animals were followed into the Bering Sea and hunted down in a calm sea in the quietest months of the year, a practically unlimited quantity of females might be taken, and, as you say, it would be only a few years till the Alaska seal was a thing of the past." (Extract from a letter addressed to C. A. Williams, esq., August 22, 1888.)

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Opinion of Sir George Baden-Powell.

Essentially the same view is held by so well known an authority as Sir George Baden-Powell, after having visited the western coast and thoroughly investigated the question, as he says, from the point of view of natural history, in a letter written by him to the London Times in November, 1889. Among other things, relating to the Bering Sea question, he says: "As a matter of fact, the Canadian sealers take very few, if any, seals close to these islands. Their main catch is made far out at sea and is almost entirely composed of females."

The London Trade Sales.

In addition to evidence of this kind, the records of the London Trade Sales may be cited. In these the pelagic catch in Bering Sea and the North Pacific is quoted under the title "Northwest Coast," and the character of the skins is conclusively shown by the fact that their market price is invariably very much lower than that of the island catch quoted under the title of "Alaska skins."

Waste of life.

An important element in determining the effect of pelagic sealing is its wastefulness, growing out of the loss of many seals at sea by their being wounded so that they either die and sink at once or escape without being taken, only to die soon after. When female seals are



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Waste of life.

thus lost—and the great majority are shown to be females—a serious wound is inflicted upon the herd, without the gain of so much as a single skin.

Great numbers wounded.

While there is much difference of opinion as to the relation of the number of seals lost in this way to the number taken, no one denies that some loss occurs. That seals are often wounded without being taken, is proved by the frequent finding of bullets and shot in the bodies of seals killed on the islands. As no females are killed there, and as those seals of either sex that are wounded to death at sea, but not secured, can never be appealed to as witnesses, the extent of the injury from this source must be more or less a matter of inference. The only direct testimony is that which must be furnished by those engaged in pelagic sealing, and in this matter they are personally interested to such an extent as to render their evidence of uncertain value. Such as we were able to examine on this point ventured the opinion that about one-third of those killed were lost. Captain Webster declares it to be his belief that about one-third of the number killed were saved. Doubtless much depends on the method of killing, the use of spears being thought to be much less wasteful than that of rifle

Percentage of seals lost.

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or shotgun. Guns, however, are now generally employed by the hunters Many persons who have had opportunities for acquiring information on this question by conference with pelagic sealers, Indian and white, or from other sources, have declared that the loss is very much greater, putting the number of seals lost to those recovered as five to one or ten to one, or even higher. In the absence of more certain knowledge, it is our judgment, based on the best information available, that such estimates are exaggerated, but there can be no doubt that the loss from this source is real and serious, and that it must be taken into account in any estimate of the effects of pelagic sealing.

Percentage of seals lost.

Pelagic sealing as an industry is of recent origin, and may be said to date from 1879. In 1880, according to the official report of the Canadian Minister of Marine and Fisheries, 7 vessels and 213 men were engaged in pelagic sealing in the North Pacific, securing 13,600 skins, valued at $163,200. The same authority states that in 1886, 20 vessels and 459 men secured 38,907 skins, valued at $389,070. In 1891 the number of United States and Canadian vessels had increased to over 100; upwards of 2,000 men were engaged, and more than 62,000 skins were secured.

Growth of pelagic sealing.

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Growth of pelagic sealing.

Thus it appears that for ten years after the Alaska purchase the fur-seals of the Pribilof Islands were practically undisturbed in passing to and from their breeding grounds; that in 1879, 7 vessels and 213 men attacked them in the sea along the Northwest Coast, securing 13,600 skins; that the industry proved so remunerative that in twelve years the number of vessels had increased from 7 to over 100; the men from 213 to upwards of 2,000, and the skins secured from 13,600 to more than 62,000! One of the effects of this slaughter was the appearance on the rookeries upon the islands of thousands upon thousands of dead pups, starvation resulting from the loss of their mothers who went out in search of food but never returned. A glance upon the chart showing the location of the sealing schooners when warned out of the sea by Government vessels will throw much light on the wholesale, not to say inhuman, destruction of young seals.

Comparison of sealing on land and at sea.

Finally, in comparing the operation of taking seals on land with pelagic sealing, it is important to observe that in the latter there is no possible way in which the *number* of seals taken can be controlled. While limitations of time and place might restrict the number captured by one hunter, increase in the number of hunters, which

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it is practically impossible to prevent, would quickly render such restriction valueless. As long as hunting was profitable it would be followed, and the profit considered would be that which is immediate. Hundreds of schooners under private direction would have little thought of the good of the many, and the effort of every individual would be to take as many seals as possible during the season, regardless of sex, age, or condition, for next year there may be no seals to take.

Comparison of sealing on land and at sea.

Either pelagic sealing or killing on land must bear the responsibility for the decadence in seal life which has taken place during the last few years, and this decadence is known to have occurred contemporaneously with the development of pelagic sealing from a comparatively trifling industry (practiced mostly by Indians and confined almost entirely to the North Pacific coast) to its present magnitude, such that, despite the presence of a considerable fleet of vessels of both the United States and Great Britain patrolling Bering Sea to declare it unlawful and to arrest those engaged in it, a pelagic catch of over sixty thousand seals was had in a single season. In view of this fact, and of the careful comparison which we have made of the two methods of taking seals, on land and at sea, and

Decrease of herd caused by pelagic sealing.

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Decrease of herd caused by pelagic sealing.

of their effects on the seal herd, we feel justified in declaring our belief that the great diminution in the number of seals on and frequenting the Pribilof Islands, which has been observed during the past few years, must be attributed to the evil effects of pelagic sealing.

Prohibition of pelagic sealing necessary.

Having found the source of the evil, it is easy to determine the remedy. The principal measure necessary for the protection and preservation of seal life in Bering Sea is one which must practically prohibit pelagic sealing. Argument on this point is unnecessary if we have succeeded in establishing the propositions already laid down in this report. It may be worth while, however, to refer briefly to one or two plans, restrictive as to time and place, which have been offered as a solution of this problem. It is evident that any scheme that contemplates continued license to pelagic sealing, even in a much restricted form, is not the logical outcome of the facts and circumstances as they exist to-day, and must fall short of accomplishing the desired result.

Limited protection inadequate.

A zone of prohibition inadequate.

Among other plans that have been suggested, is the establishment of a zone surrounding the islands outside of which pelagic sealing might be allowed and inside of which no sealing vessels should be permitted to go. This plan has the advantage of being satisfactory, if properly

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executed. If the radius of this protected area is great enough to insure the exclusion of pelagic sealers from Bering Sea and the North Pacific Ocean it would be entirely acceptable. But when a radius of ten miles or of thirty or even fifty miles is suggested, the impression is strong that such a proposition is not intended to be seriously considered. An examination of the chart showing the location of sealers when warned in the summer of 1891 will show that they are widely distributed. On the occasion of our visit to the Pribilof Islands in July and August of that year seals appeared in considerable numbers while we were from one hundred and fifty to one hundred and seventy-five miles from the islands, and many were seen up to the time of our reaching the islands.

A zone of prohibition inadequate.

The possibility of properly executing any proposed scheme of protection must also have great weight in determining its value. For instance, a proposal to permit pelagic sealing with the condition that only barren females were to be hunted and killed would be quite free from objection, for if all such were destroyed the herd would not suffer. But the absurdity of such a proposition is at once evident to all who are familiar with the elements of the problem. The difficulty

Discrimination by pelagic sealers impossible.

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Impossible to maintain a zone.

in maintaining a protected zone about the islands, the radius of which shall be comparatively small, will be clear to all who know the conditions prevailing in that part of the world. There is almost constant cloudiness and dense fog, and it is difficult for a vessel to know her own location within reasonable limits after having cruised about for a short time. The margin of uncertainty would be nearly as wide as the zone itself. Often the navigator receives his first information regarding the nearness to the islands by hearing the cries of the seals on the rookeries, which he can not see. Under such circumstances few arrests would be made of trespassing vessels that could not make a plausible plea in self-defense. In most cases it would be difficult to prove that the sealer was actually within the forbidden area.

A close season.

A more reasonable proposition is that involving a close time. A regulation fixing dates between which pelagic sealing would be everywhere forbidden would be of easy execution compared with the zonal restrictions. But, as already stated, to be of value it must be of such a nature as to practically prohibit the taking of seals at sea.

But it must practically prohibit.

Other remedies of no avail.

Other remedies have been proposed, but when examined they are found to have the vital defect of licensing or legitimatizing the evil practice

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which has already resulted so disastrously, and without any adequate means of controlling the magnitude of its developments. In short, if we do not wish the history of the fur-seal in Bering Sea to be a repetition of that of the rookeries of the Southern Ocean and of other localities where seals once flourished, measures adequate to the existing evil, heroic, if need be, must be adopted. In 1889, Prof. W. H. Flower, director of the Natural History Museum, London, wrote as follows, after referring to the total annihilation of the rookeries of the south seas: "Owing to the ruthless and indiscriminate slaughter carried on by ignorant and lawless sealers regardless of everything but immediate profit," he says, "The only spot in the world where fur-seals are now found in their original or even increased numbers is the Pribilof group, a circumstance entirely owing to the rigid enforcement of the wise regulations of the Alaska Commercial Company, which are based on a thorough knowledge of the habits of the animals. But for this the fur-seal might before now have been added to the long list of animals exterminated from the earth by the hand of man."

Other remedies of no avail.

Prof. W. H Flower.

Less than three years have elapsed, and the catastrophe here hinted at is well under way. Its progress can be arrested only, we believe, by

Progress of extermination.



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Progress of extermination.

the acceptance of the principles stated above, which are the logical deductions from established facts.

Raids on the rookeries.

It may be worth while to add that the suggestion has been made that the decrease in the number of seals is due to piratical raids upon the islands themselves during the breeding season.

Comparison of raids and pelagic sealing.

While it is unquestionably true that such raids have occasionally occurred during the past, and that some skins have been obtained in that way, the number of these is so trifling in comparison with the annual pelagic catch as not to affect in any way the question under consideration. It is also difficult for one familiar with the rookeries and the habits of the seal to conceive of a raid being made without its becoming known to the officers in charge of the operations upon the islands. The "raid theory," therefore, may be dismissed as unworthy, in our judgment, of serious consideration.

Recommendation as to management of islands.

In addition to the establishment of such regulations as would practically suppress pelagic sealing, it is strongly recommended that killing on the islands be subjected to somewhat more strict and competent supervision. While it is not believed that any serious consequences have resulted from looseness in this respect, the inter-

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ests involved are so important, and in some respects so complicated, that too much care can not be given to the selection of the proper persons to be intrusted with their conservation. The practice of frequent changes in the Government agents is deplorable. They should be so familiar through association and observation with the appearance of the various rookeries as to be the first to notice any changes which may take place. They will thus be enabled to determine annually the number of seals which may be taken with safety and from what rookeries, whether the driving is properly conducted, etc., and their whole efforts should be directed to the preservation of the seal herd in its normal condition.

Recommendation as to management of islands.

SUMMARY.

Conclusions.

The number of seals frequenting the Pribilof Islands has greatly diminished during the past few years.

Seals have decreased.

*Proofs.*—The physical condition of the rookeries and the testimony of natives and of Government officers and Company agents who have resided upon the islands for many years.

The decrease in the number of seals is the result of the evil effects of pelagic sealing.

Decrease caused by pelagic sealing.

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*Proofs.*—The seal is polygamous; many males may be killed without injury to the reproductive forces, but no females, except the barren. Killing on land may be and is selective; no females are killed. Pelagic sealing is not and can not be selective; a majority of seals killed are females. The presence of dead pups in great numbers on the rookeries last year proves that their mothers had been killed at sea while in search of food. Thus, for nearly every skin taken two seals were killed, to say nothing of wastefulness through failure to recover seals shot at sea.

There is no evidence of a lack of virile males on the rookeries.

Suppress pelagic sealing.

*Remedy.*—The suppression of pelagic sealing.

When this is secured, the Government, insisting on a strict enforcement of its regulations through the agency of responsible and competent officers, can render this industry, so important and valuable to all the civilized world, as nearly perpetual as it is possible for man to determine.

THOMAS C. MENDENHALL.
C. HART MERRIAM.

WASHINGTON, *April 15, 1892.*

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# Appendix A.

## SEALS SINK WHEN KILLED IN THE WATER.

It is well known that seals in general sink when killed in the water. To prevent the loss of such seals various devices are employed. In the Newfoundland and Labrador seal fisheries the great majority of the seals killed are taken on the ice, but some are shot in the water. In order to secure the latter, each hunter is provided with a reel of stout cord, to which is attached a lead weight bearing several large hooks. When a seal has been shot, the hunter holds the coil of loose cord in one hand and swings the weight with the other until it attains sufficient momentum, when he lets it fly in the direction of the seal, hoping to overreach the animal, in which case the lead weight carries the hooks rapidly downward on the far side of the seal. By means of a strong pull on the cord, the hooks are made to take hold of the seal and he is drawn in.

Hair-seals.

In the North Pacific, the pelagic sealers are provided with slender poles, each bearing an iron hook at one end, with which they secure many seals that have begun to sink. In order

Fur-seals.



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Fur-seals.

to use this pole, the hunter in his boat approaches the seal to within shotgun range; after firing, the oarsman propels the boat rapidly to the spot, thus enabling the hunter in an uncertain percentage of cases to reach the seal with his gaff.

Hair-seals.

Mr. Hinckelmann, Royal Superintendent of Fisheries, in an article entitled "Injuries to the Fisheries in the Baltic by Seals," states: "The seal when mortally wounded invariably sinks to the bottom, where, at least in deep water, it can not be reached. . . . The huntsman can only in very rare cases prove that his shot has been successful, as the dead seal can not be taken from the surface of the water, but sinks to the bottom." (Translated in Bull. U. S. Fish Commission, Vol. VII, for 1887–1889, p. 81.)

Antarctic fur-seals.

Captain Musgrave, who was shipwrecked on the Auckland Islands, and for a year and a half subsisted largely on the flesh of seals and sea-lions, states: "When they are killed in the water they sink like a stone." (Quoted by R. A. A. Sherrin in "Handbook of the Fisheries of New Zealand," 1886, p. 248.)

Hair-seals.

Payer and Copeland, in their account of "Hunting and Animal Life in East Greenland," state respecting seals: "When dead they sink very quickly." (The Zoölogist, No. 124, 1876, p. 4744.)

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Hair-seals.

Robert Warren, in a note in The Zoölogist for 1880 (3d series, Vol. IV, pp. 358–359) states that a gray seal (*Halichœrus gryphus*) was shot in Killala Bay while in the act of devouring a fine salmon. "On receiving the ball through the hinder part of his head, he sunk out of sight, but was thrown ashore by the next tide, and even then retained a part of the salmon between his jaws."

Reason seals sink.

The reason seals in general sink when killed in the water is that the specific gravity of their flesh and bones collectively is considerably greater than that of water, while the specific gravity of the layer of fat beneath the skin is less than that of water. This layer of blubber is much thicker in the hair-seals than in the fur-seals, but is not thick enough to float the body; consequently, even the hair-seals sink when killed at sea. It is true that a certain percentage of seals killed in the water float long enough to be recovered. Such seals, as a rule, are shot through the lungs, permitting enough air to escape from the lungs into the body cavity and wounded tissues to cause them to float. Pelagic sealers admit that seals shot in the head, when the rest of the body is under water, are almost certain to sink before they can be reached.

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# Appendix B.

## DATES OF ARRIVALS OF FUR-SEALS AT PRIBILOF ISLANDS, 1871-1891.

*First arrival of bulls, cows, and pups at St. Paul Island, Bering Sea, 1872–1891, inclusive (from the official record).*

| Year. | Bulls. | Cows. | Pups. |
|---|---|---|---|
| 1872 | May 13 | June 3 | June 13 |
| 1873 | Apr. 24 | 8 | 25 |
| 1874 | 23 | May 24 | †11 |
| 1875 | 28 | June 7 | 10 |
| 1876 | May 3 | 5 | No record. |
| 1877 | 17 | May 25 | May 29 |
| 1878 | 6 | June 8 | No record. |
| 1879 | Apr. 29 | 16 | June 18 |
| 1880 | Apr. 30 | No record* | 10 |
| 1881 | May 5 | June 8 | 12 |
| 1882 | 26 | No record* | No record. |
| 1883 | May 6 | ....do ..... | do. |
| 1884 | Apr. 30 | ....do ..... | do. |
| 1885 | 27 | ....do ..... | do. |
| 1886 | 16 | ....do ..... | do. |
| 1887 | May 1 | ....do ..... | do. |
| 1888 | 1 | ....do ..... | May 21 |
| 1889 | 3 | June ‡10 | June ‡10 |
| 1890 | Apr. 28 | 6 | 10 |
| 1891 | May 1 | 11 | 13 |

*On June 21 rookeries rapidly filling up.
† "Arriving in fair numbers."
‡ "Good many reported."



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*First arrival of bulls, cows, and pups at St. George Island, Bering Sea, 1871–1891, inclusive (from the official record).*

| Year. | Bulls. | Cows. | Pups. |
|---|---|---|---|
| 1871 | May 4 | No record. | No record. |
| 1872 | 6 | ....do ..... | do. |
| 1873 | 10 | ....do ..... | do. |
| 1874 | 1 | June 7 | June 7 |
| 1875 | Apr. 26 | 9 | No record. |
| 1876 | Feb. 15* | 13 | do. |
| 1877 | May 8 | 8 | do. |
| 1878 | 10 | No record. | do. |
| 1879 | 10 | June 9 | do. |
| 1880 | 1 | No record. | do. |
| 1881 | 6 | June 9 | June 9 |
| 1882 | 2 | 9 | 11 |
| 1883 | 7 | 6 | 6 |
| 1884 | 4 | 7 | 10 |
| 1885 | Apr. 29 | 1 | No record. |
| 1886 | May 4 | 8 | June 8 |
| 1887 | 7 | No record. | No record. |
| 1888 | 8 | ..... | May 31 |
| 1889 | 5 | May 31 | No record. |
| 1890 | Apr. 26 | No record. | do. |
| 1891 | May 5 | June 3 | June 10 |

*Large numbers in water.

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# Appendix C.

**YOUNG SEALS ARE BORN ON LAND OR ICE; DO NOT SWIM AT FIRST, AND CAN NOT NURSE IN THE WATER.**

All seals born on land or ice.

No species of seal in any part of the world gives birth to its young in the water, either among the sea-bears and sea-lions (*Otariidæ*) or among the true seals (*Phocidæ.*) In the great majority of species the young are brought forth on rocks along the shore, but in a few kinds of hair-seals, notably the harps and hoods, they are born on the ice floes of the far north.

Nursing impossible in water.

Not only are all kinds of seals born on land (or ice), but they remain there while nursing, for seals can not suckle their young in the sea; the young are unable to hold their breath long, and would drown if they attempted to nurse in the water.

Young seals dread the water.

However strange it may seem to those unfamiliar with the facts, all young seals are afraid of the water at first and enter it with great reluctance. At the island of St. Paul, in August, we have seen mother seals take their young by the skin of the



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Young seals dread the water.

back and carry them out into the water, much against the will of the young, and have seen this repeated several times before the young were permitted to land, which they did in a state of great excitement and fatigue. Captain Bryant, who spent many years at the Pribilof Islands as chief Government agent, states: "It seems strange that an animal like this, born to live in the water for the greater portion of its life, should be at first helpless in what seems to be its natural element, yet these young seals if put into it before they are five or six weeks old will drown as quickly as a young chicken. They are somewhat slow, too, in learning to swim, using at first only the fore flippers, carrying the hind ones rigidly extended and partially above water. As soon as they are able to swim (usually about the last week of August) they move from the breeding places on the exposed points and headlands to the coves and bays, where they are sheltered from the heavy surf, and where there are low sand beaches. (Bryant in Allen's Pinnipeds, 1880, p. 387.)

Captain Musgrave, who was shipwrecked on the Auckland Isles for more than a year and a half, has published some important notes respecting the sea-lions of those islands. Concerning the young, he states: "It might be supposed

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that these animals, even when young, would readily go into the water—that being one of their natural instincts, but, strange to say, such is not the case; it is only with the greatest difficulty and a wonderful display of patience, that the mother succeeds in getting her young in for the first time. I have known a cow to be three days getting her calves down half a mile and into the water, and, what is most surprising of all, it can not swim when it is in the water."

Young seals dread the water.

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# Appendix D.

## NATURAL ENEMIES.

The killer-whale.

The only important enemy of the fur-seal known to man is the killer-whale (*Orca gladiator*). These killers visit the islands on their way north about the end of April, and return in September. In the fall they hug the shore, keeping in the kelp or moving about the rocks as near inshore as they find sufficient water to float in. They are sometimes seen in squads circling round and round the islands, catching young pups by dozens. At first the pups are said to pay no attention to the enemy, sometimes swimming right into the killer's mouth, but before the end of the season they learn what the presence of the killer means, and rush out of the water and up on the rocks whenever one comes near shore. The killers generally arrive early in September, and remain as long as the pups stay, which is usually until the latter part of November.



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# Appendix E.

## FOOD OF THE FUR-SEAL.

### CONTENTS OF STOMACHS OF FUR-SEALS KILLED AT THE PRIBILOF ISLANDS.

*August 1–3, 1891.*

Examination made on Pribilof Islands.

One hundred and eighteen stomachs of fur-seals were examined jointly by the United States and British Bering Sea Commissioners at St. Paul and St. George Islands, August 1 and August 3, 1891, with the following results:

Contents of stomachs.

All the stomachs were opened immediately after the seals were killed. Ninety-three out of the one hundred and eighteen were empty, except for the presence of a little mucus, bile, frothy slime, dark brownish blood, and parasitic worms. Blood in some form was present in five stomachs, and nematode worms about three inches in length were found in most of the stomachs opened.

Twenty contained pebbles, or pebbles and beach-worn shells, either alone or in connection with other contents, the quantity varying from from a single small pebble to a handful.



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Contents of stomachs.

Four contained beaks of squid or cuttlefish (identified by Dr. William H. Dall as probably *Gonatus fabricii*), of which three sets were in one stomach, two sets in another, and one each in the remaining two.

Two contained fish bones, of which one consisted of the vertebræ and a few other bones of a cod (*Gaddus morrhua*); the other the ear bones of a similar fish.

One contained a large Isopod crustacean (identified by Prof. Sidney I. Smith as "apparently a species of *Rocinela*, a genus very close to Æga").

One contained a small bit of kelp.

## CONTENTS OF STOMACHS OF FUR-SEALS KILLED IN THE NORTH PACIFIC OCEAN.

*April 22–May 1, 1892.*

Examination made at Washington, D. C.

The stomachs of 104 fur-seals killed by pelagic sealers in the North Pacific off southeastern Alaska, April 22–May 1, 1892, between latitude 56° 45′ and 58° 58′, and mostly sixty to eighty miles from shore, were examined by the naturalist of the United States Fish Commission steamer *Albatross*. Of the 104 stomachs, 67, or 64.4 per cent. were empty. Of the remaining 37, 30 contained 37 fishes and 18 contained 728 squids or cuttlefish.

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Contents of stomachs.

Most of the stomachs containing food have been submitted to us for examination, and the fishes have been identified by Dr. Tarleton H. Bean, Ichthyologist of the United States Fish Commission.

Of the 30 containing fishes, 15 contained red rock fish or rock cod (*Sebastichthys*, 5 of which were found in 1 stomach, making 19 in all), 2 contained salmon, 2 pollock (*Pollachius chalcogrammus*), 2 ling, 1 stickleback (*Gasterosteus cataphractus*), and 9 small fishes too much digested to admit of ready identification. Two contained pebbles, and several intestinal worms.

Although squids were found in only 18 of the 37 stomachs containing food, a large number were generally found in each stomach—as many as 419 beaks in one instance, and 319 in another. In all, 1,456 beaks, representing 728 squids, were found in the 18 stomachs, an average of 40½ to each seal. Owing to the small size of the individual beaks, particularly those of the younger squids, many were probably lost in emptying and transferring the stomach contents, so that the number here given is certainly below the number originally contained.

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Conclusion as to food and feeding.

The examination of these stomachs shows that the fur-seals are chiefly surface feeders, the only food found from moderate depths being the red rock fish or rock cod (*Sebastichthys*), of which all the specimens obtained belong to a species of whose haunts and habits nothing is known.

NOTE.—Appendix E, on the food of the fur-seal, has been completed since the foregoing report and Appendices A to D were written.

THOMAS C. MENDENHALL.
C. HART MERRIAM.

WASHINGTON, D. C., *June 30, 1892.*

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